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Original Articles.

LEGAL LIMITATIONS AND AUTHORITY OF MASSACHUSETTS LOCAL BOARDS OF HEALTH.

BY FRANCIS GEO. CURTIS, M.D., BOSTON,
Chairman, Newton Board of Health.

BY Massachusetts law, great powers are given to the local boards of health; powers so great that they make the board the most powerful branch of the government of which it is a part.

The State early recognized the necessity of exercising almost autocratic powers in cases in which the health of the community was involved and, in order that the offender might be unable to invoke the traditional delay of legal procedure, gave these great powers to a body of men who should be able to act quickly and intelligently and with the authority which comes directly from the legislature. Very wisely, also, the State recognized that these powers could be exercised more intelligently by men living in the locality where they were to be exercised and thus familiar with local conditions, than they could be by a central authority, and as a result, with very few exceptions, the power of the local boards is practically paramount within their own communities.

These powers carry with them great responsibilities and also the implied understanding that the local boards shall exercise them only after due consideration.

Because the board of health exercises so many and such various functions, there are many laws defining its duties, but, with few exceptions, the chief functions of a board of health may be classed under three major headings, *viz.*, nuisances, protection of food supplies and the prevention of disease.

It is, of course, impossible in the limits of a paper of this kind to speak of all the ramifications of these great functions, and it is my purpose to refer broadly to some of the more important aspects of each and try to show what the power of a local board may be under each, and what its limitations, based upon a rather hasty perusal of the decisions of the Supreme Court, which may seem to bear upon the different functions.

It should be clearly understood, however, that the inferences drawn are those of a layman, not of a lawyer, and it is quite possible that the latter might give an entirely different opinion as to the meaning of the statement by the court, even when the meaning seems perfectly clear to the lay mind.

There are certain general principles which should always be borne in mind whenever an

important question is presented to the local board for consideration.

Because of the great powers which it exercises, a board of health should be very careful that it exercises them justly and with due consideration of the rights of all interested parties, and, for these reasons, it should always give a hearing in those cases in which no harm will come because of the delay.

There are many cases in which this delay will not be harmful to the community, and the board can proceed slowly; while in other cases, such as may occur in handling a case of disease, delay may be dangerous and the board must act in a way which may seem arbitrary.

It should always be remembered that the board is a servant of the people and acts for the benefit and protection of the public.

Three other things should be borne in mind: first, that it is always well to consult the legal advisor in important matters, where time can be spared; second, always try to put yourself in the place of the other fellow and see what he could do to the case if he should go to court, and, finally, be sure that the records covering the transactions are complete and correct.

It is a safe inference that the courts will be unwilling to upset the action of the board of health, unless the latter has glaringly gone outside of its authority and that, if the board will take pains to consider all phases of the question before acting, its action will be upheld by the courts.

In fact, there are several decisions of the Supreme Court in which, to the lay mind, it is apparent that it has been taken for granted that a board of health acted *in bona fide*, even though the record was incomplete.

Another example of the support given to boards of health by the Supreme Court is shown in a case in which it upheld the lower court in refusing to issue an injunction against a person who held a license from the local board of health to build a stable—one of the arguments being that if an injunction should be issued it would render the licensing power of the board, a power granted it by the legislature, null and void (157 Mass. 12).

Two quotations from this decision are of interest: "the act gives to the designated tribunal jurisdiction to determine finally whether the use of the property in accordance with the terms of the proposed license, would or would not make it a public or private nuisance and that the use of the building in conformity with the license granted, would not subject the owner to indictment or injunction." And the other, "if the board of health cannot finally determine it (*i.e.*, whether the use would be a nuisance), their license, when granted, is of no effect."

So much for the general power of a board of health.

The first function to be considered is that of nuisances, and here the power of the board of health is very broad.

General Laws, Chap. 111, Sect. 122, says: "The board of health shall examine into all nuisances, sources of filth and causes of sickness within its town . . . which may in its opinion be injurious to the public health, shall destroy, remove or prevent the same, as the case may require, and shall make regulations for the public health and safety relative thereto . . . "

This is a very broad statute and may be considered as the basic law under which boards of health act. It is also one of the oldest, being based upon Chap. 16, Sects. 3, 5 and 11, of the Acts of 1797.

The first question to be answered is, "What constitutes a nuisance?" The Century Dictionary defines nuisance as "that which is noxious, offensive, irritating . . . ", and, further, "such use of property . . . as . . . transgresses the just restrictions upon use or conduct which the propinquity of other persons or property, in civilized communities, imposes upon what would otherwise be rightful freedom."

From the point of view of the board of health, any use of property which causes discomfort to others may justly be considered a nuisance. It need not cause sickness. This was decided as long ago as 1846, when the Supreme Court of Massachusetts held, in the case of an effluvium arising from flowed land from which the water was occasionally withdrawn, that the corruption of the atmosphere need not be sufficient to be dangerous to health, in order to constitute a nuisance (11 Metcalf, 570).

In the same decision is a statement worthy of recollection, namely, that "a person is entitled to use his land to his own best advantage, subject only to this limitation: that he shall not use it to the detriment of others."

In the last Manual of Health Laws, Edition of 1915, there is quoted an opinion of the Attorney General that, under this section, boards of health may examine the children of a school if they have reasonable grounds for believing that cases of sickness, which are, in effect, causes of sickness, exist in such school.

When a board of health, after due consideration, has declared that a nuisance exists and issued in the proper form the necessary order or orders for its abatement, the person owning or maintaining the nuisance has no alternative but to obey the order, for the courts will not review the case until the orders of the board have been obeyed. Then, and not till then, will the court consider the question (179 Mass. 385).

Under this statute, the board can order an owner to abate a nuisance at his own expense, within 24 hours after notice or such other time as it may deem proper and, if he refuses or

neglects to obey the order within the specified time, he is liable to a fine of not more than twenty dollars for every day that he knowingly violates such order. (G. L., C. 111, Sect. 123.)

If the board sees fit, it may cause the nuisance to be abated and all expenses caused thereby shall be paid by the person causing or permitting the nuisance, provided he has had actual notice from the board of its existence. (G. L., C. 111, Sect. 125.)

It seems from these references, that a local board of health has almost unlimited power over nuisances. It is, in the first place, the sole judge of the existence of a nuisance, and, having decided that one exists, can compel the owner to abate it, or can abate it at his expense, before he can enter an appeal against its decision.

In spite of, or perhaps because of, these great powers, certain limitations have been placed upon boards of health when dealing with nuisances. Some of these limitations are included in the Statutes, while others have been imposed by decisions of the courts.

The notice ordering the abatement of a nuisance, in order to be valid, must be in writing, and may be served personally upon the owner, occupant or his authorized agent, or it may be left at his last and usual place of abode, if it is known and in the state. Otherwise, it may be served by posting upon the premises and by advertising in one or more newspapers.

The board cannot include in the order, a direction that the nuisance shall be abated in any specified way, for the courts have held that the owner may abate it in any proper manner, but the fact that the order does contain a direction as to how the nuisance shall be abated, apparently does not render the order void, as far as the existence of the nuisance and the necessity of abating it is concerned, although it is void as to directing the manner in which it shall be done. (143 Mass. 113.)

In order to avoid controversy, it is well to leave out of the order all reference as to the method of the abatement.

In case of a disagreement between the board of health and the person maintaining a nuisance, as to whether or not it has been satisfactorily abated, there seem to be no rulings of the court, but in the absence of such, it seems to be perfectly clear that the decision rests with the board of health, because it is plainly evident that, if the condition which was the reason for issuing the original order is not abated or removed to the satisfaction of the board, it still exists, from the point of view of the board, and its order to abate has not been obeyed.

In one case, in the writer's own city, in which the owner claimed that he had abated the nuisance and the board did not consider that he had, a complaint was made against him for failure to obey an order of the board. The case was tried in the police court, the defendant found guilty and ordered to abate the nuisance to the satisfaction of the board of health, within 72 hours, with the alternative of having the maximum fine imposed in case of failure. The defendant appealed, but shortly afterwards withdrew his appeal, abated the nuisance within the specified time, and the case went no further.

In looking over the various decisions of the court bearing upon nuisances, there seems to be another implied limitation, *viz.*, that a board cannot issue a blanket order declaring that any specified condition or course of procedure constitutes a nuisance, source of filth or cause of sickness, even when it is convinced that such condition or course does, in fact, constitute such.

It seems, however, that it is entirely within the province of a board of health to declare that that particular condition existing upon the premises of John Doe or of Richard Roe, is a nuisance, although it cannot declare that the same condition if it should exist anywhere within the limits of its jurisdiction, constitutes a nuisance. As the Supreme Court declares in the case of the Commonwealth *vs.* Drew (208 Mass. 493), "Primarily it (*i.e.*, a nuisance, source of filth or cause of sickness) refers to something local . . . " which seems to mean that the board must consider each case individually.

The opinion in this case, while too long to quote here, is of great interest and should be read on account of its bearing upon the powers of boards of health.

If it appears that too much space has been devoted to the consideration of nuisances, it is because the supervision of such matters is a very important part of the routine work of a local board of health and one in which the public is much interested and very prone to appeal to the board for action. It is not an exaggeration to say that at least 30 per cent. of the calls coming to the average board of health are complaints in regard to alleged nuisances.

The next function to be considered is the care and prevention of diseases dangerous to the public health. This is, of course, a very important function and, to the average citizen, is one of the chief reasons for the existence of a board of health.

The power to declare what diseases shall be classed as dangerous to the public health is given by law to the State Department of Public Health, but the control of persons ill with such diseases and the measures to be taken to prevent their spread are in the hands of the local boards, subject only to the limitations imposed by certain statutes.

In the first place, the statute imposes certain duties on boards of health when they have re-

ceived notice of the occurrence of a case of disease dangerous to the public health.

G. L., C. 111, Sect. 104, directs the board of health when a disease dangerous to the public health exists in its city or town, to use all possible care to prevent the spread of infection and to give public notice of infected places—meaning, probably, of houses wherein the disease is present—by displaying red flags at proper distances, and by all other means which, in its judgment, may be most effectual for the common safety.

This section, which is a very old one, does not entirely conform to modern theories in regard to infection, nor to modern practice in placarding houses, but, as it stands, it is the present law governing placarding for disease, and it should be noted that it directs the board to give notice by "displaying red flags and all other means, etc."

Section 112 of the same Chapter 111, directs the local board to notify the State Department of Public Health within 24 hours of the occurrence of a case of a disease dangerous to the public health, giving the name, age and address of the patient, and his disease. It shall also, at the request of the department, certify any such reports to the Department of Public Welfare. Under Section 113, it shall keep a record of all reports of disease, giving the name and location of the patient, his age, the disease, the name of the person reporting the case and the date of the report. The board shall also notify the school committee of such cases.

The same section requires the board to appoint a person, who need not be a member of the board, to give the notice required under Section 112. The appointment and acceptance of the appointment must be put on the records of the board, and the person accepting the appointment is liable to a fine for refusal or wilful neglect in reporting.

What will happen if no member or employee of the board is willing to accept this appointment and the fact is put into the records, the writer does not venture to state.

Under Sect. 95, C. 111, the board of health must provide a hospital, nurses and other assistance and necessaries for persons sick with a disease dangerous to the public health, and may cause such person to be removed thereto, if it can be done without danger to his health.

If the patient cannot be moved, the house where he is shall be considered as a hospital, and all persons residing therein shall be subject to the regulations of the board. Under this section boards of health can impose quarantine restrictions upon persons living in a house in which there is a case of disease dangerous to the public health, and prevent unauthorized persons entering therein.

It should be remembered, however, that if the board decides to quarantine the wage-earner or prevent him from carrying on his usual business, he is entitled to compensation, during the period of restraint, equivalent to three-fourths of his regular wages, but that this compensation shall not exceed two dollars per day. Apparently, this section does not give the board authority to seize a house and turn it into a hospital.

There are many cases bearing on this section (See 140 Mass., 314; 137 Mass. 554; 192 Mass. 317; 162 Mass. 176) which it would require a lawyer to unravel, and it seems that if the board decides to take possession of a house for this purpose, it should act under G. L., C. 111, Sect. 96.

There seems, also, to be some difference of opinion as to the power of the board forcibly to remove a patient to a hospital under either Section 95 or 96, and Section 97 says, "The provisions of Sections 95 and 96, so far as they confer authority for the removal of patients from their homes, shall apply only in the case of persons residing in boarding-houses, or hotels, or in the case of two or more families occupying the same dwelling, or in other cases in which, in the opinion of the board, the case cannot be properly isolated."

It seems, to the lay mind, at any rate, that this final sentence leaves the decision as to the necessity of removal, entirely in the hands of the board of health.

Under the preceding section, *i.e.*, Sect. 96, the board must apply to a magistrate authorized to issue warrants in criminal cases, for the necessary warrant. The wording of the statute is permissive, and if the magistrate refused to issue the warrant, the board would, of course, be unable to remove the patient. Fortunately, most courts are willing to take the word of the board of health as to the necessity of removal, in all diseases where such removal is required, with the sole exception of tuberculosis, a disease dangerous to the public health and one in which removal is sometimes urgently required.

One point in regard to caring for a patient should be borne in mind, *viz.*, that under certain circumstances the expenses of caring for the sick are valid charges against the place of settlement, but any expenses incurred for quarantine and keeping people out of the house where the patient is, must be borne by the board of health of the place where the illness occurs. It is seldom necessary in these days to resort to the expedient of guards, whether armed or not, to enforce quarantine, but if such should be employed, the courts have ruled that such expense is not for the benefit of the sick person, but for the protection of persons living in the neighborhood and must, therefore, be borne by the place benefited, *i.e.*, the place where the patient is living, no matter what his settlement.

Another thing to be remembered is that the

board of health is limited to spending money for the care and support of the patient only, and cannot take care of the other members of the family.

It is very plainly stated in a decision of the Supreme Court (187 Mass. 150) that "the plaintiff *city* cannot recover expenses incurred . . . for supplies for other persons not ill, who were quarantined in the same house." This seems to debar any department of the city from recovering even when the family was quarantined, while an Attorney General has ruled that a board of health is not authorized to charge the Commonwealth any expenditures made upon *the family* of a person infected with a contagious disease, such aid being necessary only when the family of the person affected is isolated or quarantined. The aid should be furnished by the Overseers of the Poor, and does not pauperize the family. From this ruling it appears that the city furnishing that aid can collect for aid to the family when it is quarantined, but that it must claim through the Overseers of the Poor, whereas the decision already quoted seems to say that the city cannot collect at all.

There is another peculiar point in regard to reimbursement: G. L., C. 111, Sect. 116, says that these claims "shall be paid by the city or town in which he (*i.e.*, the patient) has a legal settlement, upon the approval of the bill by the board of health of such city or town."

The meaning is obscure and, as far as can be learned, the Supreme Court has declined to say whether or not, in case of disagreement about settlement, one city can sue another on such a bill, unless the bill is approved by the board of health of the defendant city.

It would be wise to try to have this law amended, so that there can be no doubt of its meaning.

The next great function to be considered is the protection of food supplies and, first, we shall consider the supervision of milk and dairies.

Every local board of health is required by law to appoint one or more inspectors of milk, the limitation in this case being that no one engaged directly or indirectly in the business of selling milk shall be appointed.

The inspectors shall keep records of the names and places of business of all the persons selling milk in the city or town, and may appoint collectors of samples who have power to enter places where milk is stored or sold and wagons used for selling milk. By G. L., C. 94, Sect. 43, the power of the local boards is extended far beyond its own borders by the proviso that no milk shall be sold in any city or town until the dairy where it is produced has been approved by the local board of health of that city or town.

This allows the local board to prohibit the sale of milk from any dairy, no matter where situated, and, as that prohibition also excludes the milk from any other city or town in the State, it allows the local board to enforce its requirements anywhere.

Practically, it is very difficult to carry out this inspection because, under modern methods, milk comes from so many localities and such great distances, that it is impossible for a local board to inspect all dairies whose milk may be sold within its borders.

Under a recent agreement, by which certain cities and towns interested will combine and divide this work between them, a great improvement may be expected.

There seem to be fewer decisions of the court in regard to the control of food supplies than about other functions of local boards, but one dealing with the jurisdiction of the local board as against the State Department of Public Health, is of interest (203 Mass. 602). This has to do with the inspection of slaughtering and is too long to quote, but it should be read.

The supervision of bakeries is under the control of local boards, subject to certain regulations drawn up by the State Department of Public Health.

No decisions have been handed down dealing with the power of local boards in this matter, but it is hoped that the Court will be asked to pass upon the definition of the word "bakery" in the Statute, as by that definition the power of the local board is widely extended.

In this very hasty sketch it has been impossible to deal with all the functions of the local boards, but enough has been said to show that they have great powers and few limitations, provided they act intelligently and justly.

The local board of health can greatly increase its power by teaching the public that its board of health is a body to which it can turn for information.

During his service on the board of health of a small city, the writer has been impressed with the steadily increasing number of questions which the public ask the board of health, not only on matters connected with health, but many of them on matters over which it has no legal jurisdiction, and he is convinced that if the board will try to keep in close touch with its public and teach it to appeal to the board for advice on all matters connected with health, that it will have its public, both professional and lay, behind it in its work, and will be able to accomplish many things in which it would otherwise fail. In this way, its powers will be increased and its limitations diminished.

THE American Association of Anaesthetists and the Mid-Western Association of Anaesthetists will hold a joint meeting in St. Louis, May 23-24, at Hotel Jefferson, the first three days of the A.M.A.

PSYCHOSES, PSYCHONEUROSES AND PSYCHOPATHIC CONDITIONS IN CHILDREN.

A STUDY OF 100 CASES OF BOYS AND GIRLS UNDER SIXTEEN YEARS OF AGE.*

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THE Psychopathic Department of the Boston State Hospital (the Department now an independent State Hospital known as the Boston Psychopathic Hospital), receiving, as it did, only observation cases, probably admitted more children of fifteen years or under than any other psychiatric hospital in the United States.

The data offered in this paper cover an analysis of examinations made at the hospital during the years 1913 to 1919. Out of a total of 424 admissions of boys (237) and girls (187) under sixteen years of age, 100 cases were selected as suitable for this study. These were diagnosed psychopathic personality (49), dementia praecox (19), manic depressive (11), psychoneuroses (9), and unclassified psychosis (12). The remaining 324 children, who were for one cause or another admitted to the wards of the hospital for a period of observation, were diagnosed feeble-minded, defective delinquent, epileptic, congenital syphilis, normal (or "not insane, and not feeble-minded"), chorea, encephalitis, meningitis, brain tumor, brain abscess, etc.

The problems of the feeble-minded children have been thoroughly studied; the problems of the psychopathic and delinquent have been less adequately studied, but the problems of the psychoses and psychoneuroses occurring in children have received very little attention, probably because feeble-mindedness, psychopathic conditions, and delinquency at this age period overshadow the other groups.

Children have been brought to the out-patient department and have been admitted to the wards of the Psychopathic Hospital in gradually increasing numbers each year since the hospital opened in June, 1912. This has not been because of a rapidly increasing number of children who manifest symptoms of nervousness and who show, in general, difficulties in emotional and social adaptation, but because of increasing familiarity with the Psychopathic Hospital on the part of the individuals and institutions interested in preventive mental hygiene. Such individuals and institutions realize the urgent need of early psychiatric study in cases of incipient mental disorder or of feeble-mindedness, or that all too large and somewhat formidable group of psychopathic personalities within which can fall the insanities. The individuals who fall within this latter group are difficult to place and to do justice to. They require the greatest amount of study and attention. My own personal experience with private and institutional cases leads me to believe that, aside from the necessity for continued prophylactic studies in all departments of mental defect and disorder, the maladjusted individual, the constitutional psychopath, who is neither intellectually feeble-minded nor insane, presents the biggest problem in psychiatry today.

Many of the boys and girls who were sent into the hospital wards for observation were found to be quite within the normal, both physically and mentally, but presented behavior problems not understood or well handled by parents or guardians. Taking into consideration the difficulties encountered by the psychiatrist who attempts to classify juvenile psychoses, and making due allowance for the usual disharmonies that are prone to appear at adolescence, we feel that the 100 cases offered in this study present in each case a sufficiently marked deviation from normal behavior and emotional reaction to justify the diagnoses made at the time.

The follow-up work shows that some of the children have since died, some have not recovered from their psychoses, others have made a good, others a less satisfactory adjustment, while still others in the group will doubtless continue to have a series of difficulties throughout life.

PSYCHOPATHIC PERSONALITY.

Wrongdoing is said to be the simplest, most primitive way of expressing one's individuality. Therefore, how may we know whether the boy or girl, who sometimes quite suddenly diverges from the usual social, mental, and moral reactions of the group to which he or she belongs, is a constitutional psychopath or whether the divergence is simply a reaction to a definite situation which, when analyzed, may readily be resolved and remain an isolated experience in the life of the individual in question. The asocial symptom, stealing, lying, or uncontrollable temper, which may be for the moment the chief symptom and the reason for the patient's being brought to the hospital or clinic for observation, must be correlated with other clinical and historical data, before one is justified in applying the term "psychopath" to the individual who appears for diagnosis.

Analysis of the histories of the 49 cases of psychopathic personality* embraced in this study

*Opportunity for this study was granted by the Department of Mental Diseases through the Massachusetts State Psychiatric Institute.

*This group includes seven cases which were diagnosed constitutional psychopathic inferiority.

shows, in almost every individual case, "that peculiar default, inherent in disposition and constitution, which we designate as psychopathic personality." In the matter of treatment, habit training is of first importance and should begin where all habit training must begin, to secure the best results—namely, in infancy. Too often, by the time the psychiatrist comes into contact with the patient, only the firm discipline and education of a special institution would be of value in the formation of more desirable habits.

One is often asked, "Just what do you mean by 'constitutional psychopath,' or 'psychopathic personality'?" For the enlightenment of the reader who has not yet had the question satisfactorily answered, I would here quote Pearce Bailey[1]. "Constitutional psychopaths" are individuals who have "less than normal nervous resistance to the exactions of existence, and in this sense must be called psychopathic. In addition to those already in the grip of nervous or mental disease or defect is a separate group, of which the members, at the time of any one or more examinations, present no symptoms definite enough to justify their being classed with any disease type. Some are superficially brilliant, enthusiastic, laying some claims to brief leadership, but unbalanced, changeable, and eventually disloyal to any organization. Suggestible, they easily become the tools of designing propagandists in spreading seditious doctrines, or in the commission of acts in defiance of law and order. Others are characterized by abnormal personality traits, such as suspicion, self-consciousness, obsessions, lack of control, and their social histories reveal disorders in the sphere of behavior. They have records of having repeatedly got into undesirable situations without the capacity of getting out again unassisted. They do not profit by experience—on the contrary, they fall into the same pits over and over again. They are recidivists, whether the undesirable situation is criminal or not. They are individualists and unsuitable for work in coöperation with others. . . . Psychopathic personalities lead naturally to the subject of delinquency, as the psychopathic make-up is so largely represented among offenders."

For a more comprehensive understanding of the juvenile delinquent who may or may not be considered a "constitutional psychopath," the reader is referred to the studies made by Healy[2] and Bronner.[3]

The follow-up work (October, 1920) shows, in this particular group, only four individuals whose subsequent history was such that the diagnosis of psychopathic personality would seem unjustifiable. Thirteen of the group were found to have made a fair adjustment to environmental conditions; eighteen gave little or no promise of improvement; one had become definitely psychotic; in six there was a question of beginning deterioration; one was in an institution for the feeble-minded, having made no intellectual progress beyond the age of twelve. We were unable to locate six.

In the two case histories given below, L. M. and L. C. illustrate the therapeutic value in ascertaining what kind of work the individual is most interested in and making that work possible of attainment. In the case of E. P., we find a boy who responded only to reformatory discipline and who seems to have profited unusually well by this curative measure. G. H. is the type of personality demanding careful observation and direction, especially throughout the adolescent period. He may be considered as belonging in the pre-psychotic group.

L. M., aet. 14 yrs., 9 mos., female, admitted to hospital June, 1917.

Family History.—Father died of cancer. Mother "peculiar" since childhood; probably psychotic. Siblings: one psychotic; one "very shallow"; one "very selfish." Patient is the youngest child. Said to be the most promising of the family.

Personal History.—Patient has had scarlet fever and diphtheria. Chorea three years ago. Entered public school at the age of five. In ninth grade grammar at time of admission to hospital. Although she has worked hard in school, has been unable to accomplish required amount of work and there is some doubt of her graduating this year. Has shown no immoral tendencies. Menses established. Lately she is exceedingly nervous and it is at times difficult for her to understand an ordinary question. Home conditions affect her now more than ever before. Referred by a social organization for observation, diagnosis, and prognosis.

Mental Examination.—Patient is averse to going into her family history, but answers questions regarding herself frankly and promptly. She is correctly oriented. Memory good, except for school knowledge, which is not well retained for a girl of her age. Attention good. Associations quick and often show a wide range. Train of thought not retarded. No confusion or flight of ideas. Judgment very good. No delusions or hallucinations. Emotional tone rather dull. Frequently appears depressed, but denies feeling profoundly depressed. Her own statement regarding her condition is interesting: "I sometimes get blue over nothing at all, but it usually goes away in a few minutes, sometimes in a few hours. I worry about my school work for fear that I shall not be promoted." (Have you ever thought of suicide?) "No, I have never thought of killing myself; I want to live as long as I can." (You have friends?) "Yes, I have quite a few friends. I do not like to go to school, but I know that you'll never get anywhere if you

don't. I have an ambition to be a stenographer, but the teacher tells me I will never get there and I had better learn some industrial trade."

Physical Examination. — Negative, except that during the mental examination many small movements of the fingers and twitching of facial muscles are observed.

Subsequent History. (September, 1920).— Patient is living happily with her two sisters and two maternal cousins. She has attended school regularly since she was at the hospital. Graduates from high school this year. Is taking stenography and typewriting, and plans to be a stenographer. Has worked as salesgirl in a department store the last two summer vacations. She is not "nervous" now. "Seems like other girls."

L. C., aet. 13 yrs., 9 mos., female, admitted February, 1916.

Family History.—Father is alcoholic. Is married to second wife. Mother died at childbirth, when patient was a small child. No siblings.

Personal History.—Birth and infancy normal, so far as known. Diseases: measles, chicken-pox and diphtheria. Entered public school at the age of five. Is now (at 14) repeating, for the second time, seventh-grade work. Patient is sent in to the Psychopathic Hospital by her physician for observation and diagnosis. She is said to be untruthful and dishonest; has been begging for some years; is uncleanly in her personal habits; neglected at home. Father says that at the age of six patient began begging. "She lies, steals, and is generally unreliable. Does not seem to fear discipline." At thirteen, she went to work, doing housework. From her employers we learn that she was inefficient, dishonest and even while working in a very good family, still went out begging at other houses. Her school report is that she is not reliable. Otherwise, her school work is fairly good.

Mental Examination. — Psychometric examination gives a mental age of 11 2/5 years. Has good comprehension, not over-suggestible. Flow of free association is retarded. Learning ability good. Orientation and memory good. Retention of school knowledge fair. No delusions or hallucinations. Emotional tone quite normal. She is agreeable and coöperative. Conduct good. Answers to questions given quickly and to the point. She is quite talkative. Childish in appearance, manner, and intellect. She shows fair insight. Admits that she has done some begging. Began to lie when she was a little girl. This habit started by making excuses to her stepmother when she did not return promptly from doing an errand, and grew until she would sometimes lie without any reason whatsoever. Her father would scold her for this. Thinks that her father often blamed her unjustly for things that the other children did.

Physical Examination.—An undeveloped girl of 13. Has not arrived at puberty. No evidence of organic disorder.

Subsequent History.—Patient was discharged to her physician. Went from the hospital to live with her grandmother. Later was sent to an institution because of her stealing. She was paroled after six months. Has lived outside ever since. When first placed out she stole one or two trifling things, but this phase soon wore off and has not since appeared. Physically, she was retarded in development; was "thin, and peaked" until puberty was established at the age of 16. She then began to grow rapidly. Did not feel well during this period of rapid growth, but repeated examinations failed to show anything wrong in her physical condition. She had considerable trouble with one foot for two years. Was treated, free of charge, by a competent physician, who was frank in saying he could not diagnose the condition. Later, stated that he had about concluded that the whole thing was "mental," for as soon as the patient got to doing the thing that she was anxious to do, the condition cleared up.

Patient finished grammar school at 15, attended high school for two years, but her attendance was irregular and her progress slow, as these were the two years that she was having trouble with her foot. At the end of this time, she was allowed to leave school and become a telephone operator—the thing which had been her ambition for years. Is now living with a maternal aunt and is very happy in her work. The outlook for her seems cheerful and hopeful.

E. P., aet. 11, male, admitted to hospital August, 1918.

Family History.—Father dead. Cause of death unknown. Mother living and in good health. Is married to second husband. Siblings: one brother, age nine, in third grade, normal. Paternal grandmother died of cancer. No history of alcoholism, insanity, or epilepsy in family.

Personal History. — Birth difficult. Instrumental delivery, resulting in "two dents in his forehead." Was normal in three weeks' time. Walked at one year. Talked at 18 months. Always well and strong. Had measles and whooping-cough. Tonsils and adenoids removed at the age of seven. Entered kindergarten at four. Repeated third and fourth grades. Was in special fifth grade last winter. If he concentrates, does well in his school work, but will seldom concentrate. During the past winter, slept poorly. His body would jerk and he was restless. Complained that his bones ached. Does not smoke or use liquor. Mother suspects masturbation. Three years ago, threw a stone through a window, was arrested and placed on

probation for one year. Reported regularly, and has not been arrested since. Has always been affectionate and polite, but has fits of temper which last for a few minutes; then he is penitent, saying he cannot help it. During his outbursts he will hit his head against furniture, wall, etc. Will strike his mother if she comes near him. Will yell and swear. His mother and stepfather have little control over him. He is quiet when alone, but if anyone is around he must be teasing them, and does not always do so in a playful spirit. Cannot get along with children; is much better with older people. Loves music; plays the accordion, violin, and harmonica. Has a very good singing voice. Sings solos in church at Christmas and Easter. Likes to act alone. Will imitate Charlie Chaplin and other actors. Six months ago he was sent to a home for children for observation. Remained there five weeks. Attempted to strangle himself while at the home. Once told his teacher he wished that he was dead and out of his misery. Said he thought that people did not like him. For three months past, he has been stealing from his family; buys sodas and takes car rides to the beaches. Always returns the correct change when sent on purchasing errands. One week before coming to the hospital he stole $10 from the home of a friend. At first denied the theft, then owned up without any apparent fear of consequences. Said he had done good business: bought some small chickens, a harmonica, a typewriting machine, and a knife. At school, while playing with a knife, a boy attacked him. Patient cut the other boy. The teacher advised the family to see a physician about the patient, and he was referred to the Psychopathic Hospital for observation and diagnosis.

Mental Examination.—Examination and observation over a period of ten days revealed nothing of significance except increased psychomotor activity. The patient was constantly playful and active. When describing anything, he made many gestures. Attention easily gained but distractible. Flow of thought rapid. Association wide and rapidly formed. School knowledge well retained. Emotional tone happy, apparently slightly exhilarated. Friendly with everyone. No evidence of depression while at the hospital. No delusions or hallucinations. According to his own story, he did not intend to kill himself at the children's home. He put a chain around his neck and told another boy that he would bet him any money that he (the other boy) could not hurt him by pulling the chain. One of the "ladies" came in and "the fun was all off." They thought he was trying to choke himself. Questioned about his activities, he admits theft. Has no good reason for it. He likes to visit the beaches because there is such nice hot sand there to dig holes in; likes to sit down and get sunburned; likes to swim in the summer and to skate and coast in the winter. (Do you like moving pictures?) "Yes, I like good ones. I like to see when they draw with a pencil." Patient gave a graphic description of a Charlie Chaplin picture. "Oh, he's a funny guy!" (Were you ever arrested?) "Yep, I broke a window on a train." (What about these fits of temper?) "Sometimes, when the boys tease me, I get so mad that I want to go after them." Then, quite spontaneously, the patient said, "I'd like to be out on a farm now; I'd like to ride on the cow's back,—milk,—I'd jump on the horses' backs—I know a good way to steer a cow—steer him by the horns."

Subsequent History.—After leaving the hospital, the patient continued to give trouble at home, and one month later (September, 1918), he was sent to a reformatory for boys. In October, 1920, the school gave us the following information regarding the boy: "He remained here one year, having earned his right to parole by good conduct. On the whole, he was an average boy here at the school. He received no punishments and never served a term in our Disciplinary Cottage. He showed occasional fits of temper and at first was inclined to be inattentive and lazy, but showed great improvement with training. We have no record of him since he was paroled to his parents in September, 1919."

G. H., aet. 9 yrs., 7 mos., male, admitted August, 1916.

Family History.—Father died nine years ago. No history obtained. Mother is in a State hospital, where her mental diagnosis is dementia praecox. No siblings.

Personal History.—Nothing known about the patient's birth, infancy, or childhood diseases. He is a well-developed and well-nourished boy, showing no physical defect. At the time of admission it was stated that the boy had violent outbursts of temper which were anywhere from a few minutes to a day in duration. These attacks have increased in violence and frequency during the last few months. There seems to be amnesia for what occurs during these attacks. Any slight irritation will upset him; sometimes there is apparently no cause for his explosions. He is destructive and depressed at times, and has said that he would like to do away with himself. He is very suggestible and, on occasion, will tell the most obvious lies.

Mental Examination.—In the psychometric examination, the boy grades fairly evenly at 10 years, showing a quick, nervous reaction and an effort to satisfy the examiner more than to solve the test problems. His easy suggestibility is noted. Orientation and memory tests show no defect. No delusions or hallucinations. His attention is good: flow of thought, reten-

tion of school knowledge, and interest in simple current events are all very good for a child of his age. Conduct quiet and orderly. He amuses himself on the ward by reading, writing, drawing pictures, and trying to help the nurses. Emotionally, he is a bright, affectionate child, showing the usual child's reaction to attention. In explanation of his own conduct, the boy says that the other boys in school always picked on him, and when they did, he would kick them in return; says that he will not stand for being teased or mistreated; admits that he has very bad outbursts of temper, but that there is always a cause for them. He struck a small girl and shook her by the neck because she put her tongue out at him. He does not always remember what he does when he is mad. He can give no other reason for telling lies than "just 'cause I felt like it." He felt unhappy when his mother went away in 1915. Otherwise, he thinks that he has always been happy and contented.

Subsequent History.—On discharge from the hospital, the boy was taken to the Temporary Home of a children's society. Caused no trouble while there. A few weeks later he was placed in a temporary foster home, where he was reported as a physical coward and very sensitive, but responsive, affectionate, and showing a desire to do right. Three months later (December, 1916), a second foster home was found for him. In February, 1917, his foster mother reported that he was very erratic and quick-tempered. At first, he was jealous of the other boy in the home, but overcame that fault. In May, 1917, he was doing good work at school and was to be promoted. Had begun to masturbate continually and to wet the bed frequently. Had an abnormal appetite. November, 1917, reported "quick and smart in his manner; still doing well at school; nervous and excitable at times; quarrels a good deal with the other boy in the home. Has stopped wetting the bed and masturbates less." One year later he was in the sixth grade and doing good work. Said to be "helpful and willing at home; quiet spoken, refined looking and likable. Bad habits have gone and he is less nervous." Another year later (October, 1919), "a good average boy and doing well in school; is in the seventh grade. Does not care much for other children. Would rather stay in the house and read than go out with other boys. He is honest and straightforward." In August, 1920, "has been promoted to the eighth grade; is bright in school, but requires constant pushing to keep him up with his work. He is a great reader, but dislikes work and play; honest, but unreliable; cannot remember errands he is sent on; loses the money and leaves the package after he has got whatever he was sent for." Rapid physical growth and a daily long ride (five miles) to school suggest a probable cause for this slump in the boy's activities.

DEMENTIA PRAECOX.

Our study shows that only 4.5 per cent., or 19 cases out of the 424 boys and girls who were admitted to the wards of the Psychopathic Hospital during the period under investigation, were considered fairly well-defined cases of dementia praecox. In fact, with information at hand regarding the subsequent history of these 19 cases, three cases—one during a period of six years and two during a period of two years—have manifested no signs of the disease. They have been economically efficient and have made a satisfactory social adjustment, which would leave us but 16 pure cases of dementia praecox. Of these 16 cases, only five could be classified as to type. Two were diagnosed dementia praecox simplex; two, catatonic, and one, hebephrenic.

It is interesting to note that at the time of admission to the hospital, the youngest member of this particular group was thirteen years of age, which fact gives rise to the query as to how early the disease may be recognized.

Kraepelin[4] says, in discussing 1054 cases of dementia praecox, that 3.5 per cent. began before the age of 10; somewhat less between 10 and 15, and then ran to big numbers; between 15 and 20, 21.7 per cent.; between 20 and 25, 25.5 per cent.; 25 and 30, 22.8 per cent.; and then they drop off. The point we wish to emphasize is that the number of pure cases between 10 and 15, and below 10, does not equal the number of adult cases that from early childhood up have shown mental weakness. The real symptoms of the disease usually begin later.

A careful study of the constitutional make-up, as revealed by the life history of individuals who develop dementia praecox, convinces one that for many months—indeed, in some cases for years—before the disease is recognized as such, there are many symptoms premonitory of the actual disease, which may in some cases be long protracted; that the schizophrenic make-up may be fairly easily recognized during the early years of childhood and adolescence; in fact, that the outbreak of the psychosis is, as Meyer states, "the final explosion of a long train of antecedent preparations."

As is shown in our study of juvenile cases, as well as by the studies of Kraepelin, the mental disease process known as dementia praecox would not appear to develop as a recognizable psychosis in very great numbers before the beginning of the adolescent period. As Adolf Meyer[5] and others have pointed out in important treatises on the subject, adolescence is in its beginning an important and critical period in the life of every individual, and disorders of the mental sphere, difficulties of in-

stinctive and emotional adaptation, either progressive or episodic, are not uncommon. These cases should, indeed, be treated seriously as regards correction of all remediable physical and mental defects, but in fairness to the patient, one should be guarded as to prognosis and also in the matter of naming the mental disorder. There are many cases that fall symptomatically in the dementia praecox group and by reason of their disabling symptoms become incompetents, whereas, given proper treatment, their lives might again become of real value.

Dementia praecox, or, to use the more pleasing and more descriptive name of schizophrenia, used by Bleuler[6], is no longer looked upon by the progressive psychiatrist with the same degree of hopelessness as to outcome as formerly. One still hesitates in any given case to give an unqualifiedly favorable prognosis, but we do know that in many instances, where the coöperation of all concerned can be secured, the disease may be aborted, provided the necessary treatment is instituted early enough in the course of the disease, *i.e.*, before the schistic trends have become permanently established. As clinical deterioration does not necessarily determine brain tissue degeneration, much may be expected if preventive measures are instituted early in the development of the disorder.

It is the belief of many who have made an exhaustive study of the subject that persons who develop dementia praecox, though often showing precocity of development in the intellectual field, are, from the very beginning of life, fundamentally deficient in some one or more of the vital forces which enable the better organized person to withstand, or, at the most, show a relatively slight abnormal reaction to the stress and strain attendant upon the developmental period of life. Southard speaks of dementia praecox as the "obscure, quasi-functional, but probably in some sense organic disease, dementia praecox." In writing on the "Anomalies in Dementia Praecox Brains," Southard[7] says: "The underlying hypothesis here is that the anomalous regions of the brain are in some sense weak places therein, such that disease of a toxic or metabolic nature, for example, at puberty, may unfavorably affect the anomalous and poorly constructed region."

It is a demonstrable fact that instinctive and emotional disorders do affect the metabolism, also the proper functioning of the vegetative nervous system of the individual. The poorly functioning vegetative nervous system in its turn may cause an imbalance in the endocrine system and we find as a result a hypo- or a hyperactivity of some one or more organs.

Whether the disease be dementia praecox or some other disease, to cure by prevention is the most effective cure known. Shall we wait until we know which is the "cart" and which is the "horse," or shall we rather use what knowledge we have regarding the working factors in this most common of all mental disorders, and put forth earnest effort to prevent its increase? But we must first recognize and help others to recognize the fact, first, that certain individuals are predisposed to certain types of reaction; and, second, that unfavorable reactions may be modified to the benefit and happiness of all concerned, even though the schizophrenic nature of the disorder may be fairly well established. It is difficult in cases of this disorder to make parents realize that the peculiarities of the child are due to anything save wilfulness, or that early treatment is the only safeguard against the tragedy of a mental breakdown.

In the case of S. A., cited below, we have a developing psychosis of a schizophrenic nature. It is the type of case in which we would expect considerable modification under well-selected psychotherapeutic methods, namely, analysis and reëducation. In the second case, that of M. C., we have a child who was considered "peculiar" before the age of three, and at a later age showing certain physical stigmata, although apparently normal in his mental development until the age of eleven. Prophylactic treatment in the case of M. C. would seem less hopeful of good results than in the case of S. A.

S. A., aet. 15, female, admitted September, 1915.

Family History.—Father living; health and habits unknown. Mother died about 10 years ago. Cause of death unknown. Siblings: three brothers and six sisters; condition of health and mentality not obtainable. Patient is next to the youngest child.

Personal History.—Our informant, who is the patient's brother-in-law, says that she is of an irritable temper. Has had great difficulty in learning. Did not like some of her teachers and had trouble with some of the other children. Was sent to a private school, where she also failed to get along well. For the past month has been extremely irritable. Would become depressed and then excited. Says she is "Jupiter's daughter."

Mental Examination.—The psychometric tests show that the patient has fairly good comprehension and memory, but poor apperception, and defective perception of form. She is not suggestible. Attention is slightly unstable. Grades somewhat unevenly at 14 years. Mental impairment is indicated by certain irregularities in her reaction to tests given. In the usual routine mental examination the patient seems to have a good memory for events of a personal nature. She refuses to answer questions regarding school knowledge. Knowledge of current events is limited. No hallucina-

tory ideas or experiences elicited; emotionally, quick-tempered and disagreeable. At times, very irritable to the nurses; shows a negativistic trend. Is extremely self-centered and seclusive; will have nothing to do with other patients. Has little insight. Her attitude toward people and things in general is very paranoid. Has expansive ideas about her own ability, powers, etc. She says that she has the power to make people like or dislike her; she knows that she has always been different; she is much above other people in some respects and much below the average in other respects, but she does not know what this difference is; she must be abnormal; has never cared to play with other children of her own age; they used to call her "queer"; she does not understand herself; has tried to think it all out and only gets very much confused and muddled, so she does not know what to do. At home there was one sister whom she particularly disliked, who seemed constantly trying to "boss" her. The patient dislikes her brother-in-law because she thinks that he is trying in some way to show his superiority over her. She does not like it at the hospital, because she is treated like every other person. She feels she should have special attention, *i.e.*, individual attention, a private room, special doctor, etc.

Physical Examination is essentially negative. Menses were established at 13½ years. Periods somewhat irregular.

Subsequent History.—Impossible to trace patient. She was discharged from the hospital to go to relatives in the South.

M. C., aet. 13, male, admitted July, 1918.

Family History.—Mother unmarried. Was sentenced to the State Reformatory for Women, for intemperance, within one year after the birth of patient. Hereditary syphilis suspected. No proof of same.

Personal History.—Patient was noted as "a most peculiar child until the age of three years." Then appeared "normal" for eight years. Attended school, was in the fifth grade at the age of ten. Was said to be as bright as any child in his class. At eleven years of age, he began to complain that the other children were annoying him and it was observed that he had become somewhat seclusive. His foster parents began to notice that he was cowardly. On some occasions he had spontaneous outbursts of silly laughter. He seemed to have a fear of getting his hands wet. There was a great change in him. He began to practise masturbation without shame, and also suffered from enuresis. Seemed weak, both mentally and physically. Apparently could not concentrate on any subject. He became very silly, laughed most of the time, frequently spent many hours sitting in a chair without moving or speaking. At the age of thirteen, his foster parents concluded that they could do nothing with him, and he was sent to the hospital.

Mental Examination.—When first seen at the hospital, the patient was in a rigid attitude, hands by sides, chin lowered, expression set, eyes dilated and staring. He was mute, resistive, would not move unless forced to do so. No cerea flexibilitas demonstrated. No evidence of hallucinations or delusions. Answered questions with "yes" or "no," following each such answer by the statement, "but I want to be in the bath; I like the tub better than the bed." Physically, he was somewhat defective in appearance. Stature below normal; ear lobes attached; palate high, arched; forehead low; blank facial expression. He was well nourished, and critical examination revealed no evidence of organic disease. Urinalysis negative. Wassermann reaction of serum and spinal fluid negative.

Subsequent History.—The patient was committed to a State hospital, where he has remained continuously for two years (October, 1920). He seldom speaks, except to give monosyllabic replies to questions. He denies hallucinations, but reacts to both auditory and visual hallucinations. Throughout his entire stay at the hospital he has been slovenly about his person and clothes, and apparently entirely indifferent to his surroundings. For the past year he has been working in the industrial room. Shows a childish interest in new things, but is easily discouraged and soon becomes tired of routine work. Has many mannerisms. Eats and sleeps well and is in good physical condition.

MANIC DEPRESSIVE.

A review of the literature would indicate that manic-depressive psychoses are not common at this age period (below 16 years). Eleven cases only—seven boys and four girls—were found in the 424 children admitted to the hospital during a period of six and one-half years. These were all rather frank cases of manic-depressive psychosis. All but one were in the manic phase of the disorder at the time of admission to the hospital. Four suffered more than one attack. Follow-up work shows that one girl has remained continuously in the State hospital for six years and is expected to remain there, inasmuch as her attacks increase in severity as she grows older. One boy, who was making a rapid recovery, eloped from the hospital with his mother and has not since been located. The other nine patients made a good recovery from individual attacks.

In contradistinction to the introverted type of personality of the schizophrenic, we have, in the eleven boys and girls under discussion, a history of mental and social make-up of the extroverted type. Some of these manic-depressive patients had always shown a hyper-

excitability. They were emotionally unstable, often irritable and disagreeable. Were said to be "normal" previous to the attack of mental disorder. Heredity of insanity is demonstrated in five cases. In six there is no admitted or known heredity of insanity.

While unable in every case of manic-depressive psychosis to uncover the hereditary predisposition to the disease, psychiatrists believe that persons who develop this mental disorder are "victims of the tyranny of their organization." There would seem to be, especially in every case of acute mania, a hereditary instability of brain and hormones. The tendency to periodicity, remission and relapse, suggests a physiological imbalance somewhere.

Observation shows that the periods of exaltation, depression, and sanity differ in the same patient at different times. They vary in point of duration as well as intensity. In lessening the duration and intensity of the individual attack, modern methods of treatment seem to accomplish much.

In the matter of prophylaxis in childhood, the physician who believes with Clouston[8] that "the bodily temperature at which delirium begins in a child is a good index of its brain constitution and temperament," may do much to help build up the resistance of such a child, therefore, of the adult. Almost all children have one or more of the acute infectious diseases. Some become delirious with a very slight elevation of temperature. In such children the whole organism should be kept, as nearly as possible, in a state of physical perfection. A well-regulated mode of life, freed from unnecessary excitement, plenty of outdoor, muscular exercise and wholesome, nutritious food will do much to prevent a first attack of this disorder. As is shown in the description of the manic-depressive psychosis of a boy of fifteen, the symptom-complex and course of the disease vary little from the same type of psychosis in the adult.

H. P., aet. 15 yrs., 10 mos., admitted April, 1916.

Family History.—A maternal cousin had a manic attack.

Personal History.—Birth and development normal. No diseases. Left school a year ago. Did not get along well and failed in several grades. Went to work in a shipping department after leaving school.

Make-up.—Always quick-tempered, argumentative and disagreeable. Not obedient, but headstrong and wanted his own way. Since puberty he has been more quick-tempered and "grouchy." Never depressed. He wanted to be an electrical engineer, but "his mind was occupied with too many things and he did not know what he wanted to learn."

Onset of Psychosis.—Four days before admission to the hospital he quit work because he was not feeling well. Complained of headache and general ill-feeling. Got up at one o'clock in the morning and said "too many things in my head, I can't sleep." He then began to act strangely, sang, shouted, talked foolishly, cried, whistled; could not sleep; would either lie in bed or pace up and down the rooms. Was brought to the Psychopathic Hospital after he had jumped from a second-story window of his home. On the previous morning he had been crying and singing. In the afternoon he was noisy. Chased the family out of the house. He then rushed out and rolled about in the street. Was carried into the house continuing his activities. Talked about saints and prayed. Chased the family out of the house again, this time brandishing a knife. Then locked the door, climbed out of a second-story window, and jumped.

Mental Examination.—No hallucinations or delusions elicited. Emotional tone elated, with occasional weeping. Psychomotor activity markedly increased with excitement and flight of ideas. Attention difficult to gain and could not be held. Constantly shouting, singing, lying down, and standing in various attitudes. Only rarely would he answer a question. When he did, his reply to the question would start a new line of ideas which he would utter in rapid succession. The following is a sample of his production: "We'll chase that devil out yet—Michael Angelo — Christopher Colombo — Julius Caesar the great conqueror—Socialism—I can point out any ruler, any president, any emperor in the world. Santa Maria Virginia. I am the might. Rome, Rome. Christo Dio. I am God. That's why I keep this world prosperous. Civilization — prosperity — Diabolo — Spirito sancto — George Washington—Bunker Hill—I fought in the battle of Bunker Hill—years ago—years ago—centuries—centuries—ages — ages. The people did not believe me," etc.

Physical Examination.—Negative.

Subsequent History.—At the end of three weeks the patient was transferred from the Psychopathic Hospital to a State Hospital. In October, 1920, we received the following report from the hospital to which the patient was transferred: "He was very flighty, playful and mischievous for a very short time after his transfer from the Psychopathic Hospital. When he cleared he was very comfortable, well-behaved, and very much liked by all the people here at the hospital. He had parole for several months, and was dismissed on trial visit May 20, 1917, and discharged May 20, 1918. Diagnosis: Manic depressive, manic, condition recovered. I have seen him several times during the year of trial visit and once or twice since, when he appeared perfectly well."

PSYCHONEUROSES.

While other forms of psychoneurosis than hysteria are found in childhood, our study shows that six cases were diagnosed hysteria, and a provisional diagnosis of psychasthenia (not clearly demonstrated) was made in two cases. No other forms noted.

The mental reaction which we designate as hysteria is particularly frequent in young people during the pubertal and early adolescent period.

Hysteria may have a purely emotional basis, nourished by auto- or hetero-suggestion. The disorder may easily include both physical and mental (emotional) components. In the case histories given here, both types are exemplified. One case shows the development of hysteria, associated with certain unconscious ideas, having a content of painful emotion not recognized by the patient as related to her unpleasant physical symptoms. In the second case, we have a definite physical disease accompanied by a hysterical type of reaction.

A. B., aet. 15, female, admitted April, 1915.

Family History.—Father died of tuberculosis. Mother is insane. A maternal aunt had a depression of two years' duration. One sibling, living and in good health.

Personal History.—As given by the patient. Entered kindergarten at the age of four. Left school at fourteen to go to work. Was in the first year high school. Always got along well with her teachers and the other children. Started to work in a factory after leaving school. Found the work "trying on the nerves, although not hard." The patient characterizes herself as not very truthful on some occasions, but trying to overcome the fault. As a child, had a violent temper—now she is able to control herself. Says her patience is pretty short at times. Mood usually cheerful. Likes to be busy. Thinks that life would be a little better if it were not for her "spells." The patient is referred to the Psychopathic Hospital for observation by her physician, who says: "She is subject to sudden attacks of complete unconsciousness coming on without warning and lasting a variable time. Averages about one a week." The first attack is said to have occurred immediately following the receipt of a letter seemingly written by her mother's nurse, notifying the patient of the mother's death. (Mother is still alive.) The letter, when found by a member of the household, was enclosed in an old envelope addressed to the patient in the mother's handwriting. The writing of the letter itself suggested the possibility of the patient having written it. She insists that she did not write the letter, but got it from the mail box. The letter closed with "sympathy of her nurse." In describing the onset of her "fainting" attacks, the patient says that after reading her letter, she asked a relative what she should do; she then started to go upstairs to see a woman who had been kind to her and on the stairs she became unconscious. Three months later she had another attack at 7.30 in the morning and remained unconscious until five o'clock in the afternoon. More recently the attacks have been recurring quite regularly, about once a week, and always about the middle of the afternoon. There is a brief "aura" described by the patient, she cannot seem to speak—her breath chokes her. "It comes on so sudden it takes my breath away." She has received minor injuries, such as skin abrasions, in falling. There is never any outcry. No involuntary emission of urine. No biting of the tongue. At times, she will come out of the attack for a moment, will hear those about her talking, but not distinctly enough to hear what they say. On regaining complete consciousness, she is often bright and alert. Sometimes she has a severe pain around her heart, and a headache. "Then it seems as if life was not worth living."

Mental Examination.—The usual routine examination reveals nothing of pathological significance. While sitting up in bed for physical examination (of chest), the patient suddenly became limp and fell back on the pillow. There was a constant twitching of the eyelids, which were quite firmly closed. Eyes rolled up so that the pupils could not be seen. There was apparently no response to touching the ocular conjunctiva with the head of a pin. Lips and teeth were quite firmly closed, but could be opened with a throat stick. Arms and legs flaccid. No response to vigorous pin pricks anywhere over the body. Deep and superficial reflexes all present and normal in reaction. No convulsive movement at any time. After an interval of about three minutes, the patient's face became red and she began to perspire quite freely, especially over the face, hands, and axillary regions. A smile crept over her lips, she sighed, gradually opened her eyes, complained of a sharp pain in the back of her eyes, which quite quickly passed away. She denied any knowledge of what had taken place during the attack. She was almost immediately laughing, as though nothing had happened. She then responded to pin-prick, and appeared in every way as prior to the attack.

Three days later, just after the physician had spoken with the patient, the nurse called and said the patient had fainted. She was found lying on her back at full length on the floor. Extremities perfectly flaccid. All reflexes present. Eyes rolled upward so the pupils could not be seen. There was a peculiar twitching of the lids. No response to pain stimuli. She was removed to a vacant room and again

placed at length on the floor. Her condition remained the same for about thirty minutes, when a slight twitching of the right hand was noticed; following this, the left hand began to twitch. Finally, her facial expression changed to one of fright or pain. Her breathing became more rapid and labored, and it appeared as though she were about to regain consciousness, when she relapsed into her previous flaccid, expressionless condition. These phenomena were repeated several times. During the last, she seemed to approach nearer consciousness. Her body rolled slightly from side to side, and the lower teeth pushed over the upper lip as though to bite. After fifty minutes, at the end of one of these paroxysms, her eyes opened, and after several questions were put to her, she finally spoke. She said that she felt weak and very tired. While she was still in a semi-dazed condition, an effort was made to have her recall her experience of the last hour. With continuous questions, at times leading, it seemed that she had been in a large room which she could not place definitely, but thought might be in this building. There was a large group of people around her, including members of the hospital staff, her aunt, and others she did not recognize. She was very frightened and wished to run away but dared not. Some one spoke to her. She had an indefinite idea of accusations of infidelity by the aunt. The patient remarked that she had never before remembered so much that had occurred during an attack. Although still weak, she felt strong enough to sit up in a wheel chair and was so returned to the ward.

On the following day, patient told her physician that, thinking it over, she probably had had similar experiences during previous attacks. Remembers things that her aunt has said to her.

Physical Examination.—A well-developed girl of 15. Hands and feet moist, cold and cyanotic. Marked urticaria factitia, especially over the back. Slight systolic murmur heard at apex. Neurological findings negative. Wassermann reaction of serum negative.

Subsequent History.—In a new environment, following her discharge from the hospital, and under psychotherapeutic treatment, the patient's hysterical attacks gradually abated until at the time of our last report (October, 1920), she has been entirely free from the attacks for two years. Entered high school in 1915. Is now in the sophomore year at college. Is said to be "a high-strung, sensitive girl, but shows extraordinary poise and philosophy for one of her age."

M.B., aet. 14 yrs., 10 mos., female, admitted July, 1918.

Family History.—Father mentally "peculiar," a gambler, sexually immoral. Deserted family in 1914. Mother a forlorn-looking woman, apparently subnormal mentally. Siblings: four, history not known. Patient is the second oldest. She is referred by the State Board of Charity.

Personal History.—Previous to present illness, is not recorded. She was in the eighth grade at time of leaving school. In April, 1918, patient was reported to the State Board of Charity as very ill with acute heart trouble. She was sent to a hospital, where she remained about one month. Was discharged, but grew much worse during the two days she was at home. Returned to the hospital, and later was transferred to another general hospital. In the second hospital she had two serious attacks during the five weeks that she was there, suffered much pain in the head, ran a high elevation of temperature and had spells of unconsciousness. These spells were usually preceded by a period of intense restlessness and excitement. At times she was quite mute, somewhat negativistic, had hysterical contractures. At other times, she appeared quite normal. The patient finally became so noisy and was such a disturbing element to the other patients in the general hospital that it was necessary to transfer her to the Psychopathic Hospital. The diagnosis of her condition at that time was mitral regurgitation, plus hysteria.

Mental Examination at the Psychopathic Hospital revealed no abnormal reactions. In fact, during the ten days' observation she showed no mental symptoms. She slept soundly at night. Was quiet, pleasant mannered, and coöperated well with everyone. Psychometric examination gave a normal mental age. Because of her cardiac condition, general hospital care was advised.

Physical Examination.—General development poor. Menses established four months ago. Mitral disease present. No stigmata of hysteria.

Subsequent History.—In October, 1920, the following letter is received in response to our inquiry: "After B—— left your hospital, she was placed at —— for several months, until her condition so improved that she was able to return to her home. She remained at home the following winter, and the next spring went to work in a shoe shop, earning fairly good wages. This work was not advisable, but seemed better for her physical condition than to be running around the streets as she had done. The work at the factory, however, proved too much for B——, and she was obliged to give it up and remain at home. She had been a patient at the —— Dispensary and they succeeded in getting her into the —— Hospital. As to her mental condition, she is a difficult girl to control in her home, but the mother is not up to the discipline of a difficult girl who is also sick. At times, she has had one or two hysterical attacks, but nothing as serious as the one in the

—— Hospital, which was the cause of her being sent to you. At the present time, she is doing very well, and is a fairly satisfactory patient at the Hospital."

Observations made during and subsequent to the recent war, revealed the fact that hysteria minor is not uncommonly found among apparently well-organized individuals when placed in certain circumstances. It has been quite clearly demonstrated that "violent emotions obviously prepare the soil and create a predisposition for hysterical manifestations. They increase suggestibility at the expense of the critical sense, and by occasionally producing actual states of slight mental confusion." Babinski[9] believes that hysteria minor is, so to speak, open to every one, and further says, "hysteria major hardly ever develops except in individuals who are predisposed to it by heredity or nervous antecedents, and that it is the appanage of a neuropathic aristocracy." In a chapter on Current Conceptions of Hysteria, White[10] says, "The personality, which is the highest expression of the psyche, the acme of complexity of association in a harmonious psychological synthesis, tends rather easily to fall apart. The associations are not sufficiently strong, sufficiently binding, and it splits up under the influence of certain kinds of stresses. This aptitude for disintegration has both an ontogenetic and a phylogenetic substratum. It is the infantile mentality that is thus affected."

Hysteria minor is quite easily curable. Under careful regulation and reëducation, even the "infantile mentality" will develop maturity of thought and action with economic and social results gratifyingly worth the effort expended.

It may be said of the psychoneuroses in general, especially where there are physical symptoms, shown by careful examination to be more or less obscure as to etiology, that well-chosen psychotherapeutic methods of treatment will, many times, obviate needless operative procedures, and greatly decrease the number of cases of prolonged invalidism. It will often be found that even a defective organ is a negligible factor in the production of the patient's invalidism.

The doubting physician, who has read this paper, may feel that the writer is unduly optimistic regarding prevention and treatment of the psychoneuroses and psychoses.

Interested from the beginning of my medical studies in preventive medicine, it was my good fortune to come early under the influence of Dr. Adolf Meyer and Dr. C. Macfie Campbell. Later, I had the stimulating experience of being associated with Dr. E. E. Southard. I have, therefore, quite naturally looked for the "modifiable factors" in the various symptoms of my patients and treated them accordingly, with gratifying results. Thus, I have made my own experience the basis of my optimism.

The physician with an open mind, who will combine an intimate knowledge of psychopathological literature with practical experience in a hospital or sanatorium for nervous and mental diseases, will soon come to realize that physical conditions affect the mind no more than mental states affect the physical health.

Cases of frank mental disorder do not determine the need for rational psychotherapeutic treatment. Many patients, adults as well as children, do not, for obvious reasons, visit the neuropsychiatric clinics. Few such clinics are available. Many of the most hopeful cases of psychoneuroses and incipient psychoses are often misunderstood, therefore, neglected until cure is difficult, if not impossible, to effect. Psychopathologists, who understand and give equal recognition to the morphological, physiological and psychological influences in the production of disease should be connected with every educational institution, for none will deny that preventive medicine finds its most productive opportunity in infancy, childhood and adolescence. Nowhere can these individuals be so easily reached and helped at the present time as through the schools.

In addition to the references noted throughout this paper, a brief list of helpful publications is given.

I wish here to express my gratitude to Dr. Lawson G. Lowrey for suggesting this particular study of juvenile cases. I also would acknowledge my indebtedness to Mrs. Gerna Saville Walker and her co-workers for the careful follow-up work done on the one hundred cases collected for this study.

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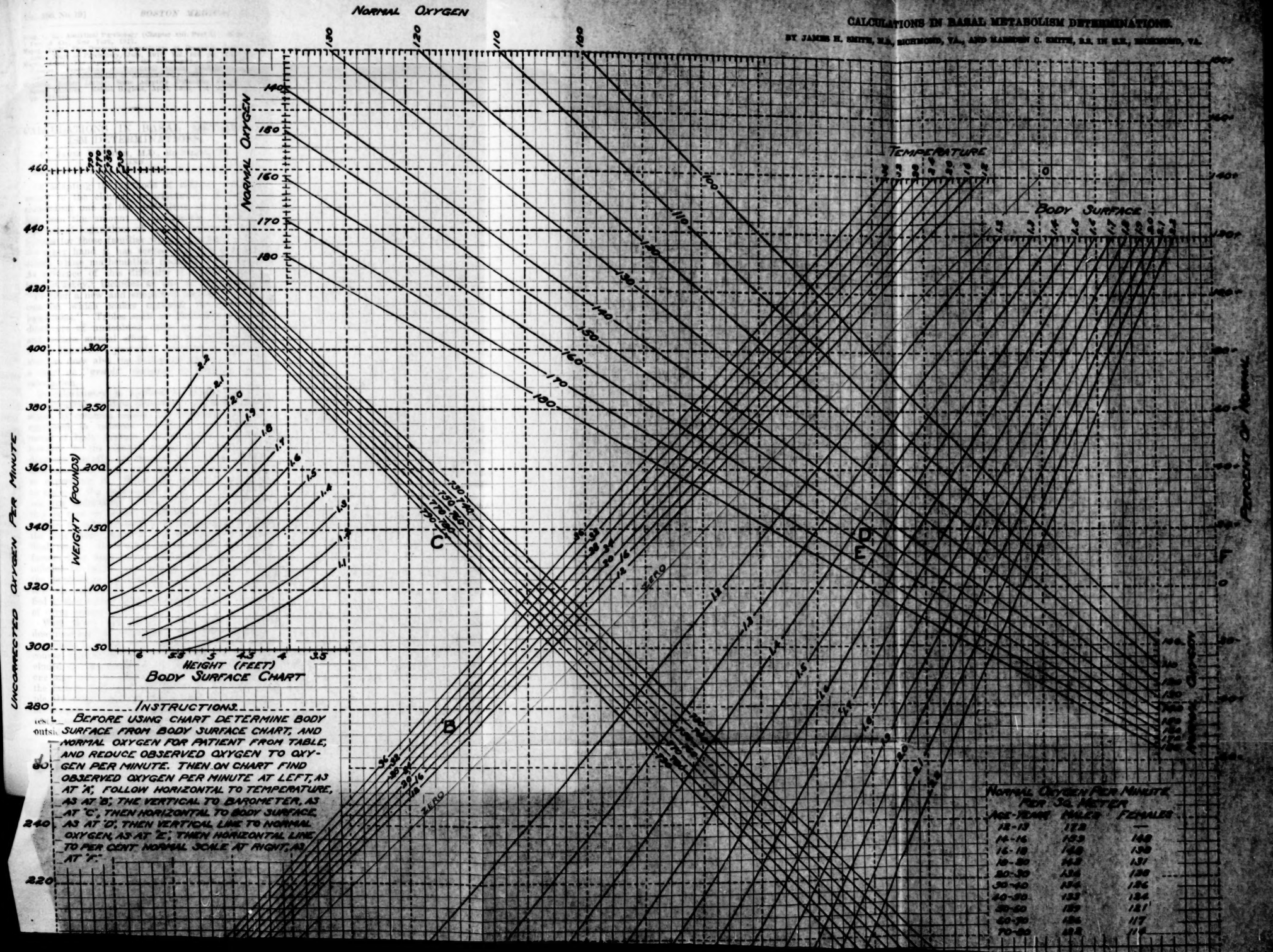
CALCULATIONS IN BASAL METABOLISM DETERMINATIONS.

BY JAMES H. SMITH, M.D., RICHMOND, VA., AND HARRISON C. SMITH, B.S. IN M.D., RICHMOND, VA.



INSTRUCTIONS.

BEFORE USING CHART DETERMINE BODY SURFACE FROM BODY SURFACE CHART, AND NORMAL OXYGEN FOR PATIENT FROM TABLE, AND REDUCE OBSERVED OXYGEN TO OXYGEN PER MINUTE. THEN ON CHART FIND OBSERVED OXYGEN PER MINUTE AT LEFT, AS AT 'A'; FOLLOW HORIZONTAL TO TEMPERATURE, AS AT 'B'; THE VERTICAL TO BAROMETER, AS AT 'C'; THEN HORIZONTAL TO BODY SURFACE, AS AT 'D'; THEN VERTICAL LINE TO NORMAL OXYGEN, AS AT 'E'; THEN HORIZONTAL LINE TO PER CENT. NORMAL SCALE AT RIGHT, AS AT 'F.'

NORMAL OXYGEN PER MINUTE PER SQ. METER		
AGE-YEARS	MALES	FEMALES
12-13	172	—
14-16	159	148
16-18	148	139
18-20	142	131
20-30	134	130
30-40	134	126
40-50	133	124
50-60	129	121
60-70	126	117
70-80	122	114

Uncorrected Oxygen Per Minute
Weight (Pounds)
Height (Feet)
Body Surface Chart
Body Surface
Percent Of Normal
Barometer
A
B
C
D
E
F
Zero
Instructions.
Before using chart determine body surface from body surface chart, and normal oxygen for patient from table, and reduce observed oxygen to oxygen per minute. Then on chart find observed oxygen per minute at left, as at 'A'; follow horizontal to temperature, as at 'B'; the vertical to barometer, as at 'C', then horizontal to body surface, as at 'D'. Then vertical line to normal oxygen, as at 'E'; then horizontal line to per cent normal scale at right, as at 'F'.
Normal Oxygen Per Minute Per 30. Meter
Age-Years | Males | Females
12-13 | 172 | —
14-16 | 159 | 148
16-18 | 148 | 138
18-20 | 142 | 131
20-30 | 136 | 128
30-40 | 134 | 126
40-50 | 133 | 124
50-60 | 129 | 121
60-70 | 126 | 117
70-80 | 122 | 114

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CALCULATIONS IN BASAL METABOLISM DETERMINATIONS.

BY JAMES H. SMITH, M.D., RICHMOND, VA.,
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IN adapting the methods of indirect calorimetry to the clinical determination of basal metabolism one of the difficulties encountered has been the amount of arithmetic involved. The use of logarithms of course facilitates the process for those familiar with logarithms. On the other hand it has served only to confuse others whose mathematical training is limited. As evidence of this difficulty a recent paper by McCaskey,[1] includes as one of its objects, "To offer a new and simplified method of calculation which makes optional the use of logarithms." Tables such as McCaskey introduces are of undoubted value in saving time and useless mental effort. His methods refer to the Benedict "portable" respiration apparatus, as does also the following description of a chart or "graph" designed to simplify the calculation.

In calorimetry as applied to nutritional or physiological studies generally, as McCaskey states, by common consent the metabolic rate is expressed in calories per hour per square meter of body surface. As a matter of fact, however, in the clinical use of the method in diagnosis chiefly of thyroid conditions there does not seem to be any special advantage in so expressing it. What the clinician wishes to know is the percentage of normal metabolism the individual is found to have. Since this is true it seems unnecessary to convert oxygen to calories and it is immaterial as to the time factor used in the expression of the final result. It is essential only that all the factors that have been determined to be significant be taken into account in arriving at the percentage of normal. To whatever extent the mathematical process can be simplified to that extent time is saved and the chance of error reduced.

With these ends in view, the chart herein described has been designed. The mathematical principles involved are simple and are, of course, applicable to any variations to be included in the problem, or to any variations one may wish to follow in the order in which the factors are taken into account. For example, the graph does not include lines for the rise of temperature in the spirometer during the test, since the removal of the motor to a place outside the spirometer makes this factor negligible. As will be seen, the factors that are included in the order named are:

C.c. of oxygen used per minute (140-460 c.c.)
Correction for temperature to 0° C. (12°-36° C.)
Correction of barometer to 760 m.m. mercury (730-790 m.m.)
Reduction of "observed oxygen," corrected as above, to rate per square meter of body surface, the DuBois height-weight scale being used as an insert. (3.5-6.5 ft.; 50-300 lbs.; 1.1-2.2 sq. m.)

The ratio of the figure thus obtained to the normal for age and sex, the latter factor also being shown in the Aub-DuBois table inserted (12-80 years).

Such charts are thoroughly familiar to engineers, and are much used by them under similar conditions.

The same principle underlies the construction of each set of lines in the chart. To illustrate:

Observed oxygen is to be corrected for temperature. If the uncorrected oxygen is 140 c.c. and the average temperature is 12° C, the application of the formula for reduction to 0° C, will give a figure represented on the chart by a point. If the same process is carried out for a different oxygen reading, say 460 c.c., at the same temperature, 12° C, another point is established. When the two points are connected by a straight line, the line represents the reduction from 12° C to 0° C of all variations of the volume of oxygen between 140 c.c. and 460 c.c., inclusive. If these two factors only were to be considered a scale in c.c. of oxygen would appear horizontally along the margin of the chart. The intermediate oxygen readings are not shown on the chart inasmuch as they are of no value, though they are, of course, used temporarily in the construction of the chart.

As indicated in the "Instructions" drawn on the chart, its use is facilitated by first determining the height-weight body surface factor according to the DuBois scale, and next the normal rate per minute for age and sex. With these figures at hand, the point on the left margin corresponding to the observed oxygen per minute is located (as at A) and followed out to the right horizontally to the point where it crosses the observed temperature line (B). From B, in vertical direction (either up or down) intersection with barometric pressure line is sought (C). From C, horizontally to intersect with the line representing body surface (D), from D vertically to intersect with the line representing the normal for age and sex (E). From E horizontally to the right to the final reading (F) in percentage of normal, plus or minus. Interpolations are made as necessary. A reproduction of the chart described is shown

herewith. It is drawn on standard one inch cross section paper, subdivided into tenths, measuring 20 inches by 22 inches, tacked to a drawing board (bread board). It can be drawn on any desired scale. No doubt the most useful modification for the average clinic would consist in a reduction of the outside limits of the various factors. This might result occasionally in the problem falling outside the limits of the chart, but only infrequently, unless the limitations were made too narrow. There are apparent advantages to be obtained in such a modification in greater simplicity and an enlarged scale with increased accuracy without increasing the actual dimensions of the chart. Varied colored inks might be of some assistance to the eye in following out the lines. Transparent triangles or squares such as are used by draughtsmen, are of help in this respect. With a little practice, the process can be carried out very quickly. The chart has been checked by various conventional processes and has been found accurate within one per cent., and useful in practice in the hands of persons of limited experience with the chart.

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Book Reviews.

Hygiene of Women and Children. By JANET E. LANE-CLAYPON, M.D., D.Sc., Dean and Lecturer on Hygiene, King's College for Women; formerly Medical Inspector under the Local Government Board. 354 pages, 71 illustrations. London: Henry Frowde and Hodder & Stoughton.

Dr. Lane-Claypon writes with the purpose of "sounding more loudly the note of individual hygiene" and of assembling in a small volume accessible information especially for "nurses and health visitors." Although she hopes that "individuals will find it of assistance," it is somewhat beyond the mentality of the average woman, except for certain chapters.

There are many excellent illustrations, particularly x-ray photographs showing the feet in proper and improper shoes, charts showing the effect of alcohol on mental efficiency; the conditions of fatigue in school children of different ages in London; charts of calories for various ages of children and women in various industries.

The average woman will find much that is helpful in the chapters on Dust and Dirt, Fatigue, The Feet, Clothing and Feeding of Children after the Age of Infancy.

The trained nurse, social worker and doctor may be particularly interested in the difference to be found in the standards of purity for milk in this country and in England.

Lessons on Tuberculosis and Consumption. By CHARLES E. ATKINSON, M.D. New York and London: Funk & Wagnalls Company. 1922.

This volume contains nearly 500 pages, dealing with almost every phase of tuberculosis from the medical and layman's viewpoint. It might almost be called the "Consumptive's Book of Knowledge."

It consists of sixteen chapters which are called lessons, and contains twenty-one excellent and interesting diagrams and illustrations. The titles of some chapters are of interest, such as the following: "If the Chest Had a Window," "You and Your Physician," "The Secret of Eating to Win," "The Elixir of Health, Fresh Air — Its Use and Abuse," "When Blue Days Come," and others. These titles excite the curiosity, and the information contained therein is of distinct value.

It is hard to form or to express an opinion on this book. One's first impression is that there is too much of it. There are many of us, I believe, who feel that we have gone a little too far in taking the public into our confidence concerning the treatment of disease. Certainly there are many patients who would fail to see the value or need of a physician if they read and digested carefully the contents of this volume. A great deal of space is devoted to explaining, by diagrams and in other ways, the pathology of the tuberculous process in the lungs. I doubt the value of this. There is likewise considerable space devoted to Dr. Russell's method of treatment and to his emulsion. One might well criticise this notice of a proprietary preparation such as Russell's Emulsion and the method of treatment which most of us do not feel is based on sound or logical grounds. There is, however, an immense amount of practical, sound information, providing one can find it.

To read the book through from cover to cover would leave the minds of most of us in a whirl. The patient in a good sanatorium or other institution would not need much of the detailed knowledge which is here given. This book resembles those thousand-page systems of medicine, etc., which undoubtedly contain all the information there is in a given subject, but which said information is so deeply buried and so cleverly concealed as to prevent to a great extent its availability.

There is, to me, a pleasing sincerity and earnestness about the book which I like. I believe the harm it can do by giving too much detail is very little, while on the other hand, it can do much good.

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CHAPTER 340 OF THE ACTS OF 1922.

HOUSE BILL 1513, which is a mutilation of House bill 955, has been enacted, signed by the Governor, and may be found in Chapter 340.

The original bill was presented by the joint committee on medical education of the Massachusetts Medical Society and the Massachusetts Homeopathic Medical Society under the leadership of Dr. C. F. Painter. The original bill was practically the same as the one presented by the same committee in previous years and was designed to raise the standards of medical education. It provided that applicants for medical registration should be graduates of medical colleges which require of students premedical study equivalent to two years in a college of liberal arts and after a four years' study in medicine to have served one year as an intern in a hospital. As amended the law now requires that a student must possess "educational qualifications required for graduation from a public high school," and be a graduate of a medical school which gives a four years' course, and places on the Board the responsibility of determining the premedical educational qualifications. This feature of the bill is an adroit species of camouflage, for although certificates of courses taken may be submitted, one may never know whether the individual applicant could have passed the examinations required in a public high school. If such courses were taken under private instructors or in correspondence schools, the Board might be wholly unable to estimate the value of the work done. History is replete with specimens of faked certificates.

Among the duties of the Board the law now requires that examinations shall be conducted in the following subjects: Anatomy, surgery, chemistry, biology, physics, physiology, pathology, obstetrics, gynecology, psychology, practice of medicine and hygiene. The incongruity of obliging the Board to examine in chemistry, biology and physics should be apparent to everybody, for these subjects are among the basic sciences which a student ought to have covered before entering upon the study of medicine. The tendency of modern pedagogy is to develop the mind of the student through a natural sequence of studies. English composition, mathematics and the languages are also valuable, fundamental subjects for study, but no one would expect that a board of examiners dealing with technical matters should be obliged to conduct examinations in such basic subjects. The absurdity, as well as the burden of work imposed, must be apparent to all competent persons.

For these added responsibilities relating to general educational qualifications the legislature has provided no increased remuneration. The Board has always been inadequately paid; but the injustice to the Board is of small consequence compared with the unfairness to the poorly equipped applicant. For example, the low-grade medical school solicits students. The greater interest in such schools centers in the fees exacted rather than in the development of efficient doctors. The minimum amount of instruction is given. Is it not pertinent to ask whether such schools will require of students sufficient training to prepare them for the State Board examinations? Do not the catalogues of such schools fail to point out the obstacles in the path of the boy who is induced to take up the study of medicine with the confident expectation of being able to secure the right to practice? One would have expected that even those members of the legislature who have been denied the privileges of a liberal education would see the injustice of leading a boy through the intricacies of medical study up to other obstacles, not in the medical curriculum, which he must overcome before he can secure the right to practice. The pathos of the situation would appeal to some individuals if the disappointments of many of these graduates of Class C schools could be witnessed. In some instances time and money have been wasted.

Simple justice and human kindness should have led our legislators to have told every prospective student of medicine that before he can

receive state recognition he must have had a reasonable education, both for his own good as well as for the safety of the people. As it is now, a large proportion of the graduates of Class C schools fail repeatedly to meet the simple (almost elemental) requirements of our State Board, as shown by the reports for the last year, for example. For the ten graduates of the Boston College of Physicians and Surgeons, only two secured registration on the first examination. The record of other graduates of this school, examined last year, showed that one applicant has failed four times, one was registered on the fourth trial and one on the second. There are two other schools in this State with records almost as bad.

The opponents of the original bill were largely represented by persons interested in these Class C schools. The opposing lobby was active and persistent, and overcame the efforts of some of the members of the Committee on Public Health who worked hard to secure the passage of a better bill. There were also some other members of the legislature who tried to mould opinion favorable to higher standards, but supporters of the Class C medical schools in Massachusetts appear to have more influence with the majority of our legislators than those who are recognized throughout the country as representing ambitions for progress.

The arguments against higher requirements range all the way from appeals for the opportunity of the poor boy up to denunciation of the medical trust and the American Medical Association. Even the Peter Bent Brigham and the Massachusetts General Hospitals are not left out of the opposing arguments, and Harvard College is made to appear as the sinister influence which would stifle the ambitions of every youth who might seek training elsewhere.

At the present time the attitude of the people of Massachusetts, as shown by a majority of their representatives, is distinctly hostile to any great forward step in medical education. Fortunately those in the medical profession who are ambitious for better service for the people are not dismayed or discouraged, for this opposition is simply a phase in evolution and is due to temporary indifference, lack of understanding and poor reasoning. The remedy lies in education. Well equipped physicians are not personally affected. The people at large are the real sufferers and in time will turn from the false prophets. Before many years Massachusetts will stand with the forty-five other states which have risen to higher ideals.

THE DOCTOR AS A WITNESS.

THE giving of testimony in a court has been a trying experience to physicians on many occasions. One ought to be familiar with court procedure and the rules of evidence, and have a high degree of self-control before seeking opportunities to pose as an expert. The character of a person stands out impressively on the witness stand. The qualities of honorable intention or partisan bias are accentuated under the importunities of counsel, and the person who can emerge from the ordeal with credit has achieved distinction.

Unfortunately, it sometimes happens that a physician is in possession of information which has value for a litigant, but having come into possession of the facts by reason of confidential professional relations, he would prefer to be excused from making this public. As an example, two physicians were employed by a woman who was in need of advice. According to published accounts, she made statements to these physicians in the course of medical examinations which, if known to the opposing counsel, could be used to her disadvantage. During the trial, counsel sought to put in the evidence, the statements made by this woman to the physicians. The physicians were reluctant to testify on the ground that the information conveyed was confidential, and in justice to the patient felt that they should be permitted to refrain from devulging knowledge obtained in this manner. They were instructed that they had no rights in the matter and must give the testimony, which was then presented. The matter was exploited in some newspapers, and the alleged opinion of an eminent surgeon of Boston, not connected with the case, was published. This surgeon condemned the physicians for giving the testimony in question. This brings to mind the criticism of an osteopathic physician for giving testimony reflecting on the integrity of a patient not very long ago.

The profession should clearly understand that the courts do not give a doctor any right to withhold facts, even though obtained through the confidential relations of the physician and patient. Lawyers are privileged and cannot be made to disclose information imparted by a client. The criticism of these physicians by other physicians is not in order. They were in the hands of the court and had no discretion in the matter. However deeply we may feel that the honor of the profession demands absolute silence when the character of the patient is in question, this can apply only to matters outside the courts. We may, perhaps, feel a degree of resentment that the lawyers have an advantage which we do not possess, but it is the duty of every loyal citizen to uphold the courts although we may at times feel that the interpretation and application of law is subject to human imperfections. When in court, a physician is subject to the authority of the law just as much as any other person, and however much he may at times have reason to deplore the humiliation imposed, any refusal to

testify when directed by the court, is futile and senseless. It will be well for critics of our professional brethren to exercise charity, for one can never be sure of escaping unpleasant experiences in court.

A word of caution may be in order. Many compromising situations might be avoided if a possible witness would exercise discretion in conference with attorneys before the trial takes place. Lawyers will make every lawful use of all information favorable to their clients. If there is anything which by reason of professional confidence one does not want to disclose, do not tell it to anyone until directed by the court. If one is willing to tell it to a lawyer he may be obliged to repeat his information in court subject, of course, to the rules of evidence.

NEWS ITEMS.

THE ITALIAN MEDICAL SOCIETY of Massachusetts held a social and scientific meeting at the Copley-Plaza Hotel on Friday, April 28. Toastmaster, Dr. Gaetano Praino; paper by Comm. Antonio Stella, M.D., of New York City, on "Pulmonary Syphilis"; discussion by Dr. E. O. Otis and Dr. G. Balboni. Remarks apropos by Comm. Rocco Brindisi, M.D.

MEETING OF THE MASSACHUSETTS ASSOCIATION OF ASSISTANT PHYSICIANS.—The 54th meeting of the Massachusetts Association of Assistant Physicians of the Department of Mental Diseases was held at the Waverley School for the Feeble-minded, Waverley, Mass., on Wednesday, April 26, 1922. The attendance was large 71 members and their wives bieng present. Those arriving early had the opportunity of observing the dental clinic of ten operators, in charge of Dr. A. G. Richburg, Assistant Professor of Clinical Dentistry, Tufts Dental School. The buffet luncheon was followed by a short business meeting, which was conducted by the President, Dr. Ralph M. Chambers.

The program was of great interest. Dr. C. S. Raymond presented a group of nine morons of high grade and briefly summarized their physical characteristics, their varied reactions in their communities, and the many difficulties of diagnosis. Dr. A. G. Richburg then gave the history of the dental clinic and described in a general way the various operations, totaling 14,213 over the last five-year period. The problems of the physicians conducting the school clinics for classification of the feeble-minded were then discussed by Dr. Esther Woodward. In closing the program, Dr. W. E. Fernald spoke of the world-wide interest in the Massachusetts School Clinics and brought out the immense value to the State, in future years, of this catalog of potential delinquents. An inspection of the school and the various industrial activities concluded a most enjoyable day.

NEIL A. DAYTON, M.D., *Secretary.*

THE DORCHESTER MEDICAL SOCIETY.—A meeting was held on Wednesday, April 26, 1922, at 8.30 P.M. Officers were elected for the ensuing year. Dr. Joseph I. Grover read a paper on "Anaphylaxis in Children." He discussed asthma, eczema, hay-fever, urticaria and angioneurotic edema, and explained the technique of the skin tests for proteins. The usual collation followed.

STAFF MEETING OF WORCESTER STATE HOSPITAL.—Dr. Lydia J. Pierce, Pathologist at the Westboro State Hospital, was the speaker at the regular staff luncheon at the Worcester State Hospital. The subject of her discourse was "Blood Chemistry." After the paper, a full discussion took place.

WILLIAM A. BRYAN, *Superintendent.*

PROF. WILLIAM DUANE of the Department of Physics of Harvard University, has been awarded the John Scott medal and certificate, with premium of $800, by the Board of Directors of City Trusts of Philadelphia, for his researches in radioactivity and x-rays. The award is made annually for scientific achievement, in accordance with the terms of a bequest over a century ago by John Scott. Last year the winner was Mme. Curie. — *Medical Record.*

BOSTON DEATH RATE.—During the week ending April 29, 1922, the number of deaths reported was 240 against 203 last year, with a rate of 16.38. There were 28 deaths under one year of age against 27 last year.

The number of cases of principal reportable diseases were: Diphtheria, 65; scarlet fever, 52; measles, 227; whooping-cough, 4; tuberculosis, 38.

Included in the above were the following cases of non-residents: Diphtheria, 6; scarlet fever 10; measles, 2; tuberculosis, 3.

Total deaths from these diseases were: Diphtheria, 1; scarlet fever, 1; measles, 1; tuberculosis, 23.

Included in the above were the following cases of non-residents: Diphtheria, 1; tuberculosis, 3.

THE New York City Department of Health has been conducting an anti-spitting campaign. Out of 1,375 arrests, 1230 were fined. The total fines amounted to $2,281.

MR. ARTHUR D. HOLMES, formerly chemist with the E. I. duPont de Nemours Co., is now employed by the E. L. Patch Company of Boston and will establish a laboratory for the prosecution of biological and physiological research.

Miscellany.

THE SCHICK TEST IN ENGLAND.

ACCORDING to the *Medical Press*, the Schick test has been given little attention in England, although it is conceded that the experience in America warrants its use. In referring to "the only instance" where this test was given a fair trial, one of the members of the Lambeth Board of Guardians characterized the action of the medical officer who used the test as "a monstrous outrage." The action of the medical officer, however, seems to have been justified, for although two deaths from diphtheria had occurred among the children in the Guardians' school, after the test had been applied no deaths occurred.

REPORT OF THE COMMITTEE ON PUBLIC HEALTH OF THE MASSACHUSETTS MEDICAL SOCIETY.

IN consequence of the report and recommendation of the Committee of the Massachusetts Medical Society "to investigate health problems in relation to the care of the sick in rural communities," and as a result of the discussion of that report and the recommendations by the Council of the Massachusetts Medical Society, the Council of the Massachusetts Medical Society directed the Committee of public Health to prepare a report outlining in some detail any plan for financial expenditure. It was furthermore suggested that any plan of the Committee on Public Health be printed in the BOSTON MEDICAL AND SURGICAL JOURNAL.

The Committee on Public Health of the Massachusetts Medical Society has, within the limits of its appropriation from the Society, undertaken certain definite lines of activities during the last ten years. The Committee has attempted to alter the scope of its activities in line with the most promising fields. Within the last two years, the Committee has attempted to spread information concerning the diphtheria problem, more particularly concerning the value of the Schick test, and toxin-antitoxin immunity, by means of demonstrations, reports in the MEDICAL JOURNAL, etc. The Committee has felt that such an activity was a very desirable service to the members of the Massachusetts Medical Society, and to the community at large. The Committee hopes to be able to continue this type of activity along similar lines. The Committee has already collected considerable data concerning the apparent value of this type of activity and the apparent need for it.

The Committee is entirely willing, if the Council directs, to undertake certain activities in the general field of health problems in relation to the care of the sick in rural communities. The Committee appreciates, however, that this problem does, or does not, come under the general heading of public health activities, depending upon the definition of Public Health. The Committee feels that the medical and health problems of rural communities deserve a great deal of careful study. The Committee is not at all clear as to the precise relative importance of this problem in which there are certain general economic factors which are well beyond the power of any single group, such as the Massachusetts Medical Society, to solve. If the Council directs, the Committee will, of course, be glad to undertake a survey of the rural problems of the State. The Committee wants to emphasize the fact that this problem is a very complicated one and that the approach to this problem must be entirely tentative and experimental. The Committee would like to emphasize, furthermore, that it does not feel it is in a position to recommend the expenditure of the funds of the Society for work in rural health as more important than many other possible forms of activity in which the Society might be interested.

The Committee feels, however, that there is a very definite obligation on the part of the Massachusetts Medical Society to the members of the Massachusetts Medical Society who are practicing medicine under the well-known difficulties of the rural communities. The Committee believes that a proper field agent could undoubtedly accomplish a great deal, directly and indirectly, for the advantage of the rural communities. The data collected by such a field agent would be of direct service to the practitioners of the Massachusetts Medical Society, because there would be some means, perhaps mainly through the BOSTON MEDICAL AND SURGICAL JOURNAL, of the interchange of valuable suggestions between isolated practitioners who are meeting the same problems in presumably different fashions. The Committee feels that indirectly these data might be of great benefit in the establishment of some policies in regard to the rural communities which might have the support of the Medical Society. These policies would include obviously the problems of the encouragement of the establishment of small central hospitals according to the needs, and the developments and utilization of certain facilities, such as laboratory facilities, for the benefit of the local practitioners, and thereby of course, of the local communities. The Committee appreciates that this is a very bare out-

line of a plan, but submits it for consideration. The Committee feels that the sum of $5000 would be necessary for the payment and expenses of such a field agent.

For the Committee,
ANNIE LEE HAMILTON, *Sec.*

SAMUEL FULLER MEMORIAL.

THE attention of members of the Massachusetts Medical Society is herewith called to the following plan which has been formulated for the Samuel Fuller Memorial:

As long ago as February 10, 1916, the late Dr. Thomas F. Harrington published a piece of correspondence in the JOURNAL, on "The Surgeon of the Mayflower," sketching the life and services of Dr. Samuel Fuller and suggesting that recognition should be given to him by the medical profession at the celebration of the Pilgrim Tercentenary.

Early in 1921, Dr. Charles H. Bangs published in the JOURNAL a more extended article on "Dr. Fuller, the Pilgrim Physician." At the meeting of the Council of the Massachusetts Medical Society in June, 1921, Dr. Bangs urged that "the Massachusetts Medical Society take steps in this tercentenary year to make a suitable memorial to that eminent pioneer physician." Accordingly, Dr. Bangs, with Dr. G. O. Ward of Worcester, Dr. Myles Standish of Boston, and Dr. E. D. Hill of Plymouth, were appointed a committee under the chairmanship of Dr. R. M. Green, to consider some suitable memorial to Dr. Fuller.

At the meeting of the Council on October 5, 1921, this committee reported that it had considered several propositions, but was unanimous in recommending that the memorial should take the form of a fund to be known as the Samuel Fuller Memorial Fund, to be applied to the establishment of a bed or ward at the Plymouth Hospital. This report of the committee was referred to the Committee on Membership and Finance, which, on February 1, 1922, again reported to the Council, approving the project but not recommending an appropriation of money from the treasury of the Society. The Council thereupon voted to accept the recommendations of the committees and delegated further action on the Samuel Fuller Memorial to the original committee in conference with the President of the Society.

In accordance with this action, the Samuel Fuller Memorial Committee now appeals through the JOURNAL to the medical profession for subscriptions of not more than five dollars to the Samuel Fuller Memorial Fund. These subscriptions will be acknowledged in the JOURNAL and by suitable certificate to each subscriber. The fund will be held in trust by the committee, its progress regularly reported to the Council and the Society; and when it has reached sufficient size, it will be presented by the Society to the Plymouth Hospital as the Samuel Fuller Memorial, for the endowment of a free bed or ward, the income only to be used for its maintenance.

The life and service of Dr. Samuel Fuller to his community, in which he was the pioneer Pilgrim physician, should be familiar to all. It is the earnest hope of the committee that a generous response will be made by the Massachusetts profession to enable the establishment of a worthy memorial.

For the Committee,
ROBERT M. GREEN, *Chairman.*

Subscriptions should be sent to Dr. Robert M. Green, 496 Commonwealth Avenue, Boston.

STAFF CLINICAL MEETING, MASSACHUSETTS GENERAL HOSPITAL, FEBRUARY 13, 1922.

Nerve Department, Dr. E. W. Taylor presiding.

The first paper of the evening was given by Dr. Stanley Cobb, who said that epilepsy has often been considered an "idiopathic disease." He said that sometimes no pathology is discovered at autopsy, but the idea that this is usually the case is erroneous, because State Hospital statistics show that from 50 to 75 per cent. of the autopsied cases have gross brain lesions. Microscopic examinations reveal gliosis in nearly 30 per cent. of epileptic brains (charts shown).

The gross brain lesions found at these autopsies are variable. Often there is hemiatrophy of a cerebral hemisphere, an area of gliosis in the cortex, an old cyst of softening, or old adhesions indicating previous hemorrhages accompanied by gliosis. This indicates that probably Southard's theory of an "epileptogenic focus," where the reflex arcs are "simplified" by either aplasia or gliosis, is the best theory so far put forward. (Lantern slides shown of these various lesions.) Other evidence that aplasia facilitates convulsive phenomena is indicated by the fact that children, whose brains are not yet fully myelinated, more frequently have convulsions than adults; also the fact that feeble-minded individuals are prone to convulsions.

Another misconception often held concerning epilepsy is in relation to the inheritance of the disease (if it may be called a disease, better perhaps a "syndrome" arising on various pathological backgrounds). The old figures concerning inheritance indicated that there was positive family history of epilepsy in nearly 50 per cent. of the cases. Certain authors have made it even more. More recent work has shown this percentage to be only 4 to 6 per

cent., and this work is more reliable because it has been studied by looking up the offspring of epileptic patients rather than relying on the family history of patients.

All these facts indicate that there is probably more pathology in the brains of epileptics (meningitis, encephalitis and gliosis) than was formerly believed, so we should think of the infections and traumata of childhood as possible etiological factors and not hold the old conception of a mysterious idiopathic malady. The more recent work of starving these patients—which has shown such beneficial results in certain cases by stopping the convulsions for long periods—is probably a means of reducing the susceptibility of the whole organism to convulsions rather than an actual effect on the fundamental cause of the disease.

In answer to a question by Dr. Ayer in regard to the distinction between epilepsy with focal lesions and the idiopathic group, Dr. Cobb said that many more cases in State Hospitals showed pathology, due to the fact that many in that group have old injuries, scars, etc., but he believes that with more autopsies and improved examinations more cases will be found showing pathology, and that the subject should be further investigated.

Dr. Hugo Mella next spoke on the Parkinsonian Syndrome. The most modern theories of the mechanisms involved in motility were first discussed, the work of Ramsey Hunt, C. and O. Vogt, L'Hermittee, and Kinier Wilson being referred to.

The static component of motility was dwelt upon and the point made that the Parkinsonian Syndrome should be placed in this system as the striatum (caudate nucleus and putamen) and pallidum, in which lesions can be demonstrated in this syndrome, have the control of posture and associated movements as their chief functions.

The Parkinsonian Syndrome may be of the juvenile type or of the senile type. It is frequently impossible to determine the etiology, but it may follow on manganese poisoning in glass, glazed brick and bronze workers, on lead poisoning, on syphilis of the central nervous system, on encephalitis lethargica, on typhoid, or may follow traumata.

It is characterized by a general immobility, loss of normal associated movements independent of muscular rigidity, fine rhythmical tremors during rest which cease during sleep and usually muscular rigidity, although any group of these, and numerous minor symptoms and signs may be absent and still the diagnosis of so-called paralysis agitans be evident.

The treatment is palliative, barbital at times giving some relief from the tremors, hyoscyamus, potassium iodide and chlorotone were of no benefit, but fluid extract of gelsemium has been found useful by Dr. Stanley Cobb in moderately advanced cases. It gave no relief in very advanced cases at the Long Island Hospital, Boston, whereas sodium cacodylate in large doses did.

Experimental work on the striatum and pallidum now being carried on in the Department of Neuropathology at Harvard Medical School was touched upon.

Following Dr. Mella, in discussion, Dr. W. J. Vivian, assistant surgeon, U. S. Public Health Service, presented the following case: Patient, age 25, was admitted to the U. S. Veterans' Hospital No. 44, with a diagnosis of paralysis agitans. The family history shows an entire absence of any mental or nervous disorders. Early life and medical history uneventful until seven years ago, when he contracted malaria and received intensive treatment with quinine. By occupation he was an auto mechanic and so far as can be ascertained, there has been no contact with manganese. He served in the Navy during the war and his medical history there gives a "chancroid" infection followed in two months by a coppery rash. He received salvarsan and mercurial treatment for about two months, when the blood became negative. Wassermanns taken during this time were one plus on three occasions and two plus on the fourth. Spinal fluid negative.

Eighteen months ago he first noticed a weakening and stiffness of the left arm, associated with tremor. Progress was gradual, and the right leg, right arm and left leg came next in order of involvement.

At the present time he presents the following picture: Face expressionless, with washed-out appearance; head and shoulders bent forward; propulsive type of gait; lack of normal association in arm and leg movements: diadochokinetic movements poorly sustained and dwindle to a tremor; coarse and fine tremors of legs, arms and hands, at times quite marked when at rest. No intention tremor. There is a pronounced rigidity, at times, of cart-wheel type, also some spasticity. There is stiffness and fatigability of the jaw muscles, he is unable to chew meat. A somewhat atypical finding is ankle clonus on the right. Wassermann on blood and spinal fluid negative. No cells, globulin or abnormal albumin, and the gold sol is negative.

The disease has been progressive with, however, some amelioration of symptoms under sodium cacodylate and hyoscine treatment.

The next paper, by Drs. J. B. Ayer and M. Freemont-Smith, consisted of a preliminary communication of twenty cases of neurosyphilis presenting gastrointestinal symptoms, in which three groups may be recognized: (1) Frank crises, gastric or intestinal; (2) Milder forms of gastrointestinal disorders, commonly spoken of as "indigestion"; (3) Cases giving the

symptoms of Group 1 or 2, in whom organic disease (ulcer, cancer) also exist.

In the first group the diagnosis is usually apparent. In the second and third groups it is often difficult. For example, hypoacidity and localized gastric spasm as shown by the barium x-ray are frequently found in tabes, but in a patient not obviously tabetic may pass for organic disease of the stomach. While operations, based on a mistaken diagnosis, are not now common in the case of frank crisis, there is a real possibility of operating upon the patient showing milder degrees of disturbance who is not obviously tabetic, and on the other hand, operation is occasionally withheld in the case of a frank tabetic who also has organic disease, as was the case in one patient of this series.

Emphasis was laid upon the early signs of tabes as seen in this group, namely, irregular or Argyll-Robertson pupils, absent Achilles jerks, hyperaesthesia on the back, and positive spinal fluid findings. Reliance for diagnosis should not be placed upon the knee-jerks which may be present, or upon the blood, which frequently shows a negative Wassermann reaction.

In discussion, Dr. George W. Holmes said that he agreed almost entirely with what had been said. He said that x-ray men ought to know whether tabes was suspected. He looked up the cases in the hospital some five years ago, and was able to find 18 cases which apparently had syphilis of the stomach. A few of these cases had anti-syphilitic treatment and the lesion improved.

Dr. A. S. Merrill emphasized the following points: positive and suggestive signs of gastric ulcer. Value of the latter in roentgen interpretation. Value of pre-x-ray knowledge of clinical suspicions of tabes in differentiating suggestive variations from the normal. Citation of cases showing relative frequency of abnormal variations; example: changes in peristalsis, 64 per cent. Irregularities (? spasmodic or organic), 45 per cent. Changes in tone, 27 per cent. Gastric delay, 20 per cent. Hypermotility, 20 per cent. Local tenderness, 20 per cent.

Similarity of abnormalities seen to those due to other causes of reflex gastric irritation. Some of the other causes of same abnormalities; example: acute gall-bladder, acute appendix, pancreatitis, peritonitis, *i.e.*, any abdominal or pelvic pathology outside of the g.i. tract.

Differentiation between tabes and other causes of reflex irritation more difficult than between tabes and ulcer.

The next paper was on the subject of Pernicious Anaemia with Early Signs from Cord Lesions, by Dr. Henry Viets. Dr. Viets spoke of two points that seemed to be of increasing importance in our knowledge of the relations between diffused combined degeneration of the spinal cord and pernicious anaemia. In the first place, a review of the literature shows that only in recent years has emphasis been placed upon the importance of the cord lesions in pernicious anaemia. Addison's original description (1855) did not mention cord symptoms, and Lichtheim (1886), who described the first case of cord lesions, thought that they were tabetic degenerations associated with anaemia. About ten years ago Cabot found cord lesions in 84 per cent. of his autopsies, but only 10 per cent. of his 1200 cases showed clinical evidence of cord degeneration, except paresthesia. The latest records seem to indicate, however, that about 80 per cent. of the cases show clinical signs, if specially sought for, of cord degeneration, and about 12 per cent. of cases present major symptoms referable to the spinal cord.

Secondly, efforts are being made to establish the diagnosis from the cord and other signs, before the blood picture changes enough to make the diagnosis certain. One case has been reported recently with marked cord symptoms for three years before the blood showed evidence of pernicious anaemia. Diffuse combined degeneration, therefore, either of the spastic or the tabetic type, may exist well in advance of the blood changes, and a highly probable diagnosis can be made from this sign practically alone. The diagnosis is also more frequently made with fewer changes in the blood picture than formerly, and more emphasis is being laid on other signs and symptoms, such as the periodic sore mouth and the achylia. Many more cases than formerly, moreover, of obvious combined degeneration are being considered as due to pernicious anaemia. Twenty years ago, Russell, Batten and Collier were doubtful if any of their seven autopsied cases were due to this disease, and Putnam and Taylor reached nearly similar conclusions. On the other hand, Collier, in 1921, considers, with most other workers, that many of the cases of this cord disease are associated with pernicious anaemia. It is possible, moreover, that there is a clinical type of combined degeneration that is always found associated with pernicious anaemia. It is hoped that this type may be discovered in certain cases before the blood pictures show many significant changes.

Dr. T. H. Townsend then read the following case history illustrating the points indicated above, from the records for the Nerve Service of the Hospital. Mrs. F. E. C., 45, housewife, entered the M. G. H. January 6, 1922, with the following history: For four years she had numbness and tingling in the fingers of both hands. For two years she had the same disturbance of sensation in her toes and feet. For four months she had been having a great deal of difficulty in walking because of the stiffness and unsteadiness of her legs. She had had occasional short spells of diarrhea during the

past four years. For the last few days she has not been able to walk at all, and she had slight urinary retention and incontinence of feces.

General physical examination not remarkable. Neurological examination showed: Cranial nerves: no disturbance. Fundi normal. Arms—slightly impaired position sense of fingers. Vibration sense slightly defective; touch, pain and temperature senses normal. No motor disturbance. Reflexes normal. Trunk: Abdominal reflexes absent. No motor or sensory disturbance. Legs: marked ataxia with slight spasticity. Marked impairment of position sense of toes and feet. Marked loss of vibratory sense. Definite motor weakness, but all motions possible. Touch, pain and temperature senses normal. Knee-jerks not obtained. Ankle-jerks not obtained. No Babinski or clonus. Unable to stand alone because of ataxia. Sphincters: retention of urine and slight incontinence of feces. Blood: hemoglobin 70 per cent. (Talquist). Red cells: 3,200,000-3,600,000 per cu. mm. White cells: 9,000-13,600 per cu. mm. Platelets: 160,000 per cu. mm. Differential count: Polymorphonuclears 75 per cent., lymphocytes 16 per cent., large mononuclears 8 per cent., eosinophils 1 per cent. Red cells showed no achromia, distinctly increased variation in size. Majority of cells seemed larger than normal. A few microcytes were seen. No normoblasts. Wassermann negative.

Gastric Analysis	Free H. C. L.	Total Ac.
Fasting contents	0	5 cc. N/10 NaOH Guaiac Neg.
Test meal	0	10 cc. N/10 NaOH Guaiac Neg.

Gastrointestinal X-ray — No evidence of organic lesion found. Lumbar puncture, 10 cc. clear colorless fluid. Pressure, 70. (–5 cc.) 50, (–5 cc.) 30. Hydrodynamics normal. cells 1 per cu. mm. Alcohol normal. Am. Sulph. = 0. Wassermann = negative. Total protein = 32. Urine-Stools normal.

LEGISLATIVE MATTERS.

HOUSE 1602, a redraft of House 598. An Act Providing for the Registration of Medical Students for the Limited Practice of Medicine, adds to the present law the following new section:

Section 9A. An applicant for limited registration under this section as an assistant in medicine, who shall furnish the board with satisfactory proof that he is twenty-one years of age or over, and of good moral character, that he is enrolled in and has creditably completed not less than two years of study in a legally chartered medical school having the power to grant degrees in medicine, and that he has been assigned to the care and observation of persons requiring medical service by an instructor in said medical school, which instructor shall be a registered physician, may, upon the payment of one dollar, be registered by the board as an assistant in medicine for such term as it may prescribe. Such registered assistant in medicine may practise medicine, but only under the supervision of such instructor; he may, however, be assigned by such instructor to a hospital, recognized and approved by such instructor, of not less than twenty-five beds, and may practise medicine as aforesaid in said hospital, but only under the supervision of a registered physician who has been duly appointed a staff physician in said hospital. Registration under this section shall not authorize the signing of certificates of births or deaths or the use of any instruments whatsoever in the treatment of cases, except instruments normally used for the purpose of diagnosis, and then for such purpose only; nor shall it authorize the prescribing or dispensing of any narcotic drug, as defined in section one hundred and ninety-seven of chapter ninety-four. Registration under this section may be revoked at any time by the board, and shall be revoked upon the request of the dean of the medical school in which such assistant in medicine is enrolled. Termination of such enrolment shall operate as a revocation of such registration.

House 1605 provides for an increase in the membership of the Industrial Accident Board from six to seven.

HEALTH PROMOTION WEEK.

GOVERNOR SMALL of Illinois has issued his proclamation designating May 7th to 13th, inclusive, as Health Promotion Week throughout the State.

The Governor asks that the people make it a time for general and whole-hearted participation in the exercises and programs which have been prepared.

The week will open on Sunday, the seventh, with health sermons from the pulpits of the churches of all denominations. Monday and Tuesday will be birth registration days, in which every effort will be made to exploit and promulgate the importance of birth registration. It is believed that, with proper efforts put forth along these lines this year, the State of Illinois can take its place among the registration states as to births. Wednesday, better babies and milk pasteurization; Thursday, vaccination; Friday, schools — medical examinations and general child welfare work; Saturday, clean-up and paint-up day.

Governor Small suggests and urges that the local health officials and heads of civic and religious organizations communicate freely with the State Director of Public Health as to advice and help that may be needed in carrying on their campaigns.—*Bulletin Chicago School of Sanitary Instruction.*

TESTIMONIAL TO DR. GEORGE E. DE SCHWEINITZ.

A BANQUET was tendered Dr. George E. de Schweinitz of Philadelphia by the Philadelphia County Medical Society on the evening of April 4 in honor of his election to the presidency of the American Medical Association. The speakers included, in addition to the honored guest, Dr. J. Norman Henry, President of the Philadelphia County Medical Society; Dr. Edward Martin, Pennsylvania State Commissioner of Health; Dr. Hubert Work, President of the American Medical Association and Postmaster-General of the United States; former Surgeon-General Dr. William C. Braisted; Dr. Ross V. Patterson, Dean of Jefferson Medical College, and Dr. John G. Clark, Professor of Gynecology in the University of Pennsylvania. By arrangement, the subjects discussed had to do mainly with medical education, preliminary or preparatory, undergraduate, and post-graduate, including a form of university extension. Dr. Hobart A. Hare acted as toastmaster. — *Medical Record.*

SUIT AGAINST DR. HENRY COLT.

THIS action grew out of surgical treatment for a broken arm. The plaintiff sued for $10,000. Dr. Colt was defended by Mr. Saltonstall, Counsel for the Massachusetts Medical Society. After a deliberation of fifteen minutes, the jury found for the defendant. If Dr. Colt had compromised in order to avoid publicity, such suits would have been encouraged. The Doctor has rendered a service to the profession in defending himself. Unless there is clear evidence of liability, every suit of this nature should be contested.

BOSTON CHAPTER BOOMS HOME HYGIENE CLASSES.

THE Boston, Mass., Metropolitan Chapter had 963 students under instruction in classes in Home Hygiene and Care of the Sick at the end of February. Nine new classes were formed during the month, with 181 students. Two of the new classes were at Miss Wheelock's School for Training Kindergarten Teachers, and each student who passes the examination will receive one poin credit from the School.

At the request of Prof. C. E. Turner, of the Massachusetts Institute of Technology, the Chapter's Supervisor of Courses in Home Hygiene and Care of the Sick has begun a course of lectures in Professor Turner's course on Public Health, and how to teach Home Hygiene and Elementary Care of the Sick.—*Red Cross Courier.*

The Massachusetts Medical Society.

MEMBERSHIP CHANGES FOR THE MONTH OF APRIL, 1922.

Official List (3d).

Compiled by the Secretary of the Society.

Adams, Donald Stansbury, Worcester, now 28 Pleasant St.

Allen, Arthur Wilburn, from Cambridge to Brookline; office, Boston, 99 Commonwealth Ave.

Ball, Arthur Nelson, from Northampton to East Gardner, State Colony.

Belisle, Eugene Simeon, Worcester, now 151 Grand St.

Benson, Clarence Kirk, from Brighton to Dedham, 8 Church St.

Bicknell, Ralph Emerson, Swampscott, now 79 Burrill St.

Blair, Orland Rossini, from Springfield to Northampton, State Hospital.

Boch, Joseph, from Whitman to Berlin N. W. 52, Germany, Thomasinsstr. 13.

Brearton, Edward John, died at Dorchester, April 15, 1922, aged 44.

Breck, Samuel, now Brookline; office, Boston, 238 Newbury St.

Cassels, Louis Raymond, Worcester, now 3 Linden St.

Clark, De Witt Scoville, Salem, now 2 Oliver St.

Coburn, Horace Fordyce. Delete "Horace" from name. From Lowell to Wilton, N. H.; office, Brookline, Mass., 7 Euston St.

Cochran, William James, Natick, now 15 West Central St.

Cooper, Olive Alfreda, from Boston to Revere; office, Medfield, Medfield State Hospital.

Cort, Parker Martin, from Westfield to Springfield, 175 State St.

Chadbourne, Arthur Patterson, from Washington, D. C., to Denver, Colo., U. S. Veterans Bureau.

Crawford, Francis Xavier, from Boston to Cambridge; office, Boston, Long Wharf, United Fruit Co.

Dayton, Neil Avon, from Westborough to Wrentham. Wrentham State School.

Donoghue, John Joseph. Worcester, now 10 Vernon St.

†Dow, James Arthur, from Belmont to Cambridge, 361 Harvard St.

Ducharme, Alphonse Napoleon, Worcester, now 40 Hamilton St.

Duval, Leon Emile, from East Gardner to Worcester, Worcester State Hospital, Summer St.

Edmunds, Fred Andrew, Endicott, N. Y., now 1804 Main St.

Emerson, Kendall, Worcester, now 21 High St.

Feeley, Walter Clarence, Cambridge, now 859 Massachusetts Ave.

Finnerty, Charles William, Cambridge, now 75 Bristol Road.

Fipphen, Clarence Wyman, Shrewsbury, now Main St.

Gerrard, Clarence Charles, Springfield, now 193 Pine St.

Goddard, Fred Chambers, Uxbridge, now Capron St.

Greene, Ransom Alphonso, from Hathorne to Boston, Room 109, State House.

Grimes, Loring, Swampscott, now 84 Humphrey St.

Haggart, Gilbert Edmund, from New York City to Boston, Massachusetts General Hospital.

Harkins, John Francis, Worcester, now 905 Park Bldg.

Hart, Francis Denbroeder, Worcester, now 51 Midland St.

Hartwell, John Bryant, Colorado Springs, Colo., now 327 Burns Bldg.
Hayes, Frederick Legro, Brookline, 423 Harvard St., no Boston office.
Holland, John Alexander, from Ashburnham to East Gardner, State Colony.
Hunt, Daniel Lawrence, Boston, now 10 Postoffice Sq., Room 55.
Knowlton, Edward Allen, Holyoke, now 265 Maple St.
Leeper, Marion Eleanor, of Northampton, died at Springfield, April 20, 1922, aged 40.
Lincoln, Merrick, Worcester, now 3 Irving St.
MacKay, George Finlay, Dalton, now 695 Main St.
Mains, Herbert Llewellyn, Danvers, now 74 Holten St.
Malone, Charles, Jamaica Plain, now 46 St. John St.
Marble, Henry Chase, Boston, now 270 Commonwealth Ave.
McPherson, George Edwin, from Boston to Belchertown, Belchertown State School.
Mead, Frederick Ammi, Willimansett, now 30 Emerson St.
Mulhern, Joseph Patrick, Worcester, now 3 Perry Ave.
Nugent, Arthur John, Worcester, now 627 Main St.
O'Meara, John William, Worcester, now 390 Main St.
Osborne, Stanley Hart, Hartford, Conn., now State Department of Health.
O'Sullivan, Anna, Boston, now 145 Newbury St.
Packard, Fabyan, now Westford; office, Graniteville.
Parker, George Leonard, Clinton, now 20 Haskell Ave.
Partington, Cyrus Brown, Denver, Colo., now U. S. P. H. Service.
Pemberton, Frank Arthur, Boston, now 198 Commonwealth Ave.
Pratt, Emily Adelaide, from Ellis Island to New York City, 44 Morningside Drive.
Proctor, Francis Ingersoll, Boston, now 146 Summer St.
Roderick, Charles Elvin, from Wrentham to Taunton, 68 W. Britannia St.
Shanahan, Timothy Joseph, from Arlington to West Somerville; office, Boston, 419 Boylston St.
Shattuck, George Cheever, Boston, now 135 Marlborough St.
Siragusa, James Joseph, from Brighton to Dorchester; office, Boston, 261 Hanover St.
Sullivan, Joseph Cornelius, Webster, now 7 Church St.
Vose, Samuel Norton, from Boston to Needham; office, Boston, 483 Beacon St.
Watters, William Henry, West Roxbury; office, Boston, now 80 East Concord St.
Weyher, Russell Frank, from Long Island Hospital to Boston City Hospital.
Woodward, William Creighton, Brighton (Boston), now 37 Egremont Road.

WANTED

Addresses of the following:
Azadian, David George.
Bardwell, Frederick Albert.
Bolduc, Alfred George.
Lawlor, John Charles.

Changes of address should be sent to the Secretary, Dr. Walter L. Burrage, 42 Eliot St., Jamaica Plain.

NOTICE! NO MAILING ADDRESS GIVEN!

A letter requesting a Point Scale (Yerkes and Rossy) and a Clinical Chart (Jellalian) was received in this office April 24. It was mailed in Worcester April 3, but was misdirected. Will the doctor who mailed the above letter please notify us and the Point Scale and Clinical Chart will be sent at once.

BOSTON MEDICAL AND SURGICAL JOURNAL.

Correspondence.

BRIEF PROTOCOL OF A NECROPSY ON THE WORD AUTOPSY.

Mr. Editor:

If this letter were to be dignified with a title, the above might serve, were it not that the word in question still shows signs of life. There is no gainsaying, however, that for fifteen years or more it has been growing increasingly unpopular among the elect. Just why, I cannot say. I would not have us stand accused of aping our British cousins, for mere aping's sake, and I have heard it objected to on the ground that, properly translated, the word refuses to mean what it ought to mean. These critics would have the word mean "a seeing of one's self," and while, by a sort of poetic license, such a term fits a post-mortem examination well enough, it carries a connotation repugnant to our sensibilities, and we are urged to drop it in favor of "necropsy." Matters have even reached the point where certain editorial blue pencils reject "autopsy" entirely; but I suspect that our pundits still say "autopsy," at least in those inner, unguarded, intimate circles where it is still permissible to chew gum. The word is more familiar, and runs more trippingly from the tongue.

But it is an old saying that analogies are dangerous. In this case, the analogy of "autograph" should have given warning that the analogy of "automobile" is not all-inclusive. The truth is that the prefix "auto" is used in Greek in two ways, reflexive and intensive, with quite different effects on the meaning of the word to which it is prefixed. Thus, while automobile (a mongrel word), does mean self-propelled, autograph does not in the least mean self-written, but written with one's own hand. There are abundant examples of both uses, and sometimes both appear in the same compound. Thus, as examples of the reflexive use, may be cited (I call upon you to bear witness, Mr. Editor, to my forbearance in using the Latin characters. Nothing sets off learning better, or renders erudition more erudite than the use of a foreign character, especially Greek),—*autochoönos*, rudely (*i.e.*, self) cast; *autophytos*, self caused; *autochroös*, self colored. The intensive use is illustrated in the following: *autocheiria*, murder done with one's own hand (Aeschylus); *autosapria*, mere rottenness; *autosarx*, mere flesh, utterly carnal; *autochrysos*, of very gold; and both uses side by side in the same word are seen in *autourgia*, which may mean work done with one's own hand, personal labor, experience (Polybius), or a thing done to one's self, self murder (Aeschylus).

Finally, the word autopsy is found in the Delphic Inscriptions, and was used by Dioscorides in the first century of our era, with the meaning "a seeing with one's own eyes," not "a viewing of one's self." I submit that "a seeing with one's own eyes" is an entirely suitable and accurate description of a post-mortem. At least, it leaves old-fashioned folk like myself, who still find "autopsy" easy and convenient to use, not quite naked to the blasts of adverse criticism.

One final example of the intensive use of "auto-" I have reserved to the last, and this shall point my moral and adorn my tale. *Schediazo* means to speak extempore. When auto is prefixed, the notion of unpreparedness is intensified, so that *autoschediazo* means to speak without due consideration, to go off, as the saying is, half-cocked.

Bibliography.—Liddel and Scott, Unabridged Greek Dictionary, *passim*.

Yours truly,

R. C. WHITMAN.

Boulder, Colorado.

CRITICISM OF THE REVIEW OF DR. BULKLEY'S BOOK.

Mr. Editor:

Dr. Bulkley's letter published in the April 27th issue of the JOURNAL failed to be as "caustic" as it might well have been (speaking of "burned at the stake").

Regardless of Dr. Bulkley and all his works, the most burning point in the cancer holocaust, in my opinion, is focussed, as it were, in the sentence which closes the *anonymous* review of Dr. Bulkley's recent book on Cancer, the review in the Jan. 26 JOURNAL, which called forth the letter above referred to.

"Anonymous" (even after Dr. Bulkley's letter) is characteristic in this connection. The one devastating, deadly blight which is delaying progress in advancing our knowledge of cancer is condensed and expressed in the brief sentence alluded to.

As the reviewer states, Dr. Bulkley advocates, and teaches the superiority of his method of treating cancer over the method of treating cancer by surgical removal of cancers. Without further ado the reviewer simply states as a fact that Dr. Bulkley is "wrong" in this respect; that "*His teaching in this respect is heresy; his book should be burned at the stake*"—and neglects to sign his name!

Dr. Bulkley is "wrong"; his teaching is heresy"; his book "should be burned at the stake." This is all true because the weight of medical authority on cancer says it is true, *and for no other known reason.* It *may* be true, but no man's say-so, nor the say-so of any group of men, makes it true.

Disregard Dr. Bulkley altogether. "Cancer at first is a purely local disease" for the sole reason that "authority" *says* it is. There is no other known evidence of the truth of that dictum; there is ample proof that the dictum is not true. It may be true, but it isn't true because the American Society for the Control of Cancer says it is true, and calls it an axiom!

Obviously, if that statement is a proven truthful statement, not only should Dr. Bulkley's book, but Doctor Bulkley himself, along with a goodly number of other doctors (including the writer), should be burned at the stake. Better burn a few books and doctors at the stake than put at stake the lives of hundreds of thousands of victims of cancer by allowing them to die an unorthodox death from cancer. Undeniably there would be a dreadful death toll if at present all cancer patients were treated on the basis that cancer is from beginning to end a constitutional disease; but it would be very difficult to equal the frightfulness of the cancer death toll as it is at present on the "purely local disease" basis, by treating it on any other basis whatsoever, including not treating it at all. The latest official cancer death rate in this country (1920) is the highest on record: 83.4 per 100,000.

If anybody on earth can demonstrate that cancer at first is a purely local disease, in all solemnity say: "For God's sake, let him do it." If nobody can or will do that thing, then I claim that "the weight of medical authority on cancer" is the greatest obstacle in the way of learning the truth about cancer. It is of no importance whatsoever in which direction the unknown truth lies; the important things are that it remains unknown; that we have sough it in one direction for hundreds of years; that search in any other direction is discouraged as much as possible by those who assume to speak with authority, who are encouraged so to do by an easy-going profession, and who ignore or who denounce (anonymously) as heretics all searchers in prohibited directions; and that more truth must be uncovered before we can make headway against cancer.

Such, in my opinion, is the one phase of the cancer muddle that must be dragged out into the light where we can take a look at it before we can accept as true the say-so of anyone who poses as an authority upon cancer, be he orthodox standpatter or heretical candidate for stake-burning.

S. W. LITTLE.

Rochester, N. Y.

CURABILITY OF PROGRESSIVE MUSCULAR ATROPHY.

BOSTON, April 29, 1922.

Mr. Editor:

In your issue of April 27th you published an article by Dr. Joel E. Goldthwait entitled, "A Case of General Progressive Muscular Atrophy with Recovery." The importance of this paper is so great and the conclusions drawn so radical that comment from the neurological standpoint is, perhaps, justifiable. It has long been accepted that certain diseases of the central nervous system, notably those which are characterized by primary degeneration of nerve elements, are progressive in course, and do not yield to treatment. That this has been recognized in the past is, however, no reason why it should not be modified in the future, if sufficient evidence is brought to bear to justify a change of opinion. This evidence Dr. Goldthwait tentatively offers in the publication of his case. Before such evidence is accepted, however, it should be definitely established that the disease which improved under his treatment to the point of practical recovery was, in fact, progressive muscular atrophy in the technical sense in which the term is used by neurologists. This evidence appears not to be forthcoming. If he refers to progressive muscular atrophy of the spinal type, the onset and whole course of the disease would preclude such a diagnosis.

If he refers to the so-called peroneal type of progressive muscular atrophy, here again the sequence of muscular involvement and the mode of onset would remove it from this category. If, in the third place, he refers to a general atrophy, irrespective of spinal cord involvement, he confuses the issue by using the term "progressive muscular atrophy" which, clinically, for the sake of clearness, should be confined to a disturbance with organic basis. The point at issue, therefore, before any deductions can be drawn as to treatment, is whether we are in this case dealing with a progressive muscular atrophy as that term is clinically used. The evidence given in the history and examination does not substantiate this idea. There is no detailed statement of the muscles involved, for example, the condition of the small muscles of the hand, of importance in the diagnosis of the spinal type of progressive muscular atrophy, nor is there a statement regarding the electrical conditions, or the reflexes, beyond the general statement that they are diminished, or the presence or absence of fibrillation.

It is, perhaps, more probable that the patient was suffering from one of the dystrophies in which the primary disturbance is muscular rather than neural, but here again the examination as given is not sufficient to justify a definite diagnosis. The most probable diagnosis which is not mentioned as a possibility is a generalized neuritis—using that term in a broad sense—of unknown etiology. In view of the outcome and the result of treatment, this diagnosis should be most seriously considered.

That the type of treatment advocated by Dr. Goldthwait is of great value in any chronic disturbance I should not be disposed to question in the slightest degree, but that he has demonstrated, as his title implies, that a case of general progressive muscular atrophy has been cured by his method, is open to doubt until he has conclusively shown that he was

dealing with a case of true muscular atrophy. Lacking that evidence, the conclusion appears unjustified that progressive muscular atrophy is curable by this or any other means as yet known.

Truly yours,

E. W. Taylor.

PANCREATIC EXTRACT IN THE TREATMENT OF DIABETES

Boston, May 4, 1922.

Mr. Editor:

In accordance with my promise in my letter of last week, I am writing you concerning the further announcements made by Professor Macleod of Toronto and his co-workers upon the results of their work with pancreatic extracts in the treatment of diabetes. He presented his paper yesterday noon before the Association of American Physicians in a clear, simple and so convincing a way that upon its conclusion Dr. Woodyatt of Chicago moved that the members of the Society express to Professor Macleod and his co-workers their appreciation of his epoch-making discovery by a standing vote of thanks. Unless I am in error, this is the first time in twenty years that such action has been taken by the Society.

Insulin, the name given to the new pancreatic extract, has now been obtained from the adult ox pancreas, so that the previous difficult methods described in my letter of last week are no longer necessary. The extract is fat free, nearly protein free, and has a low salt content, and in small quantities produces marked results. So far seven cases of human diabetes have been treated with the extract secured as above. In these cases the blood sugar has been reduced from 0.50 to approximately 0.10 per cent., the urine has been made sugar free, and acidosis has disappeared, which, as I understand it, is one of the earliest effects of the extract.

The entire subject is now being systematically investigated by the workers in Toronto. Professor Macleod said that he could not assert that they had discovered the "whole thing," or that the preparation was safe for all cases, or indeed that it should replace orthodox methods of treatment.

A test of the efficiency of the extract has been made by its injection into 125 normal rabbits. Following the injection the blood sugar, which in rabbits is about 0.125, is reduced within an hour to 0.055 per cent., and if the blood sugar goes too low, then serious convulsions may appear, but these disappear so soon as 5 grams of dextrose are injected into the animal, recovery taking place in two minutes.

All forms of hyperglycemia artificially produced in rabbits are prevented by this method.

With dogs made diabetic by depancreatization, the respiratory quotient has been shown to rise in three clear experiments when sugar combined with extract has been given the dogs. A control experiment has been made with a diabetic doctor and the respiratory quotient was raised nearly to 1.0.

The effect of the extract upon the percentage of glycogen in the liver and fat in the liver and blood has been determined. In a diabetic dog carbohydrate will never raise the glycogen content of the liver to more than 1.0 per cent., but when the carbohydrate plus the extract was given to four such dogs, the percentage of glycogen increased to over 10.0 per cent. In diabetic animals the total fatty acids in the liver amount to 10-14 per cent.; in other words, in diabetic animals the glycogen is absent from the liver, but there is much fat. When sugar plus the extract is given to such animals the fat in the liver is decreased simultaneously with the increase of glycogen, though both exist together at times, thus controverting an old theory. The lipemia of diabetic dogs will amount to 2.0 per cent., but when sugar plus the extract is given to such dogs, it decreases to 0.5 per cent.

Whereas it was possible to produce the extract on a small scale, it has not yet been possible to satisfactorily produce it in large quantities, and, in fact, the extract has ont been available in Toronto for two months. It may be six months or more before the extract is generally available, but it would seem certain that it was simply a question of time until the medical profession would have this new method of treatment of diabetes at its disposal.

Very truly yours,

Elliott P. Joslin.

SIMMONS COLLEGE PRE-MEDICAL COURSE.

Mr. Editor:

The Simmons College catalogue announcing courses for 1922-1923 includes a new two-year pre-medical program which is arranged to meet the admission requirements of medical schools of the Class A rating adopted by the American Medical Association. This announcement will be welcome to many women who are planning to go into medicine as a profession as the required arrangement of courses is not ordinarily possible in women's colleges.

Very truly yours,

C. M. Hilliard,
Professor of Biology and Public Health.

A SECTION OF OBSTETRICS IN THE STATE SOCIETY.

Somerville, May 3, 1922.

Mr. Editor:

The best way to care for the parturient woman, and the best way to safeguard the new-born, has in the past few years been freely discussed in public and private by the laity. In legislative halls, both state and national, the matter of maternity and infant welfare has received more than ordinary consideration. Strange as it may seem, the medical press and organized medical societies, with some notable exceptions, has not given to the discussion as much space and thought as the subject might seem to demand. The care of the parturient woman and the welfare of the new-born is primarily a medical work and should be exclusively under the supervision and direction of the medical profession. To achieve this end, I am asking through the Journal, Mr. Editor, that there should be established in the Massachusetts Medical Society, consistent with its constitution and by-laws, a Section of Obstetrics.

The formation of such a Section, in my opinion, would be the first step in solving the problem of the best care of the expectant mother and her child. In the Section of Obstetrics, if established, the general practitioner who is in obstetrical work and the expert in obstetrical practice could come together on equal footing to discuss obstetrical problems, and finally to determine what are the best, the safest, and the sanest means by which the expectant mother and child could be safeguarded.

The control of medical public opinion as regards the practice of obstetrics would be in the hands of those trained and competent to guide. By means of such a Section, the public could be instructed and guided in this important matter. There may be in other state medical organizations a Section of Obstetrics, but I have not heard of any. If our Society determines to establish a Section in Obstetrics, it will be the first among state societies to do so, and I think our example would be a powerful incentive to other state societies to make intensive studies in their respective states of their obstetrical conditions.

Chas. E. Mongan.

24 Central Street.

NOTICES.

NURSES NEEDED BY GOVERNMENT.

The United States Civil Service Commission states that there is need for nurses in the hospitals of the United States Veterans' Bureau and the Public Health Service and at Indian schools and agencies. Applications will be received for these positions until further notice.

Applicants are not given a written examination, but are rated upon the subjects of physical ability, weighted at 10 per cent., and training and experience, weighted at 90 per cent. Applicants must have graduated from a recognized school for trained nurses requiring a residence of at least two years in a hospital giving thorough practical and theoretical training.

Full information concerning entrance requirements, salaries, etc., and application blanks, may be obtained by communicating with the United States Civil Service Commission, Washington, D. C., or the Secretary of the Civil Service Board at the postoffice or custom house in any city.

NOTICE OF EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE.

Examinations of candidates for entrance into the regular corps of the United States Public Health Service will be held at the following-named places on the dates specified: At Washington, D. C., May 15, 1922; at Washington, D. C., June 12, 1922; at San Francisco, Cal., June 12, 1922.

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass, satisfactorily, oral, written, and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President with the advice and consent of the Senate. Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

H. S. Cumming, *Surgeon General.*

UNITED STATES CIVIL-SERVICE EXAMINATIONS.

Laboratorian (Bacteriology), Assistant Laboratorian (Bacteriology), Associate in Clinical Psychiatry and Psychotherapy, Assistant Medical Officer (Psychiatry), $2000 to $2500 a year; Junior Medical Officer (Psychiatry), $1200 to $1800 a year. Applications will be rated as received until further notice.

The United States Civil Service Commission announces open competitive examinations under the above titles. Vacancies in St. Elizabeth's Hospital, Washington, D. C., in the positions of assistant physician, junior assistant physician, and medical interne, at the salaries indicated, and vacancies in positions requiring similar qualifications, at these or higher or lower salaries, will be filled from these examinations, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Applications.—Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass.,; New York, N. Y.; New Orleans, La.

UNITED STATES CIVIL-SERVICE EXAMINATION—LABORATORY AID IN BACTERIOLOGY —JUNE 7, 1922.

The United States Civil Service Commission announces an open competitive examination for laboratory aid in bacteriology on June 7, 1922. Applicants should at once apply for Form 1312, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C., or to the Secretary of the United States Civil Service Board

The Boston Orthopedic Club.—Dr. F. E. Peckham will entertain the Boston Orthopedic Club at the Boston Medical Library on Monday, May 15, 1922, at 8:15 o'clock. Program: "Confessions of an Internist in Medical Orthopedics," Dr. Roger I. Lee. Discussion opened by Dr. Stanley Cobb, Dr. Joel E. Goldthwait, Dr. Robert J. Cook. Lloyd Brown, President; F. R. Ober, Secretary.

New England Pediatric Society.—The 75th meeting will be held at the Boston Medical Library on Friday, May 12, 1922, at 8:15 P. M.

The following papers will be read:

Acidosis, Oscar M. Schloss, M.D., Boston.

The Use of Convalescent Serum in the Treatment of Scarlet Fever, Edwin H. Place, M.D., Boston.

Mothers with Positive Wassermann Reactions, and their Children, David L. Belding, M.D., Boston.

Light refreshments will be served after the meeting.

Richard M. Smith, M.D., *President.*
Lewis W. Hill, M.D., *Secretary.*

Boston City Hospital.—Staff Clinical Meeting at Cheever Surgical Amphitheatre, Thursday, May 11, 1922, at 8 P. M. "Causes and Treatment of Vomiting in Infants," Oscar M. Schloss. "Rashes: Their Significance, Differential Diagnosis, Treatment," Edwin H. Place. Open discussion. Refreshments served. Physicians and medical students invited.

Boston Association of Cardiac Clinics.—A meeting has been arranged by the Association, to be held at the Children's Hospital, Longwood Avenue, Thursday, May 18, 1922, at 8.15 P. M. Dr. Louis I. Dublin of the Metropolitan Life Insurance Company of New York will speak on "Heart Disease in the Community." The discussion will be opened by Dr. David N. Blakely, Assistant Medical Director, New England Mutual Life Insurance Company, Boston. Dr. Paul W. Emerson of Boston will speak on "Heart Disease in the Schools." The discussion will be opened by Dr. William H. Devine, the chief physician in Boston schools. The meeting is open to all interested in the problems of heart disease.

Boston Medical History Club.—Friday, May 12, 1922, at 8.15 P. M., at Boston Medical Library. Dr. Walter R. Steiner, Hartford, Conn., "Dr. Elisha Perkins and His Metallic Tractors." Dr. Edward C. Streeter will speak informally on the plan to install an ancient apothecary shop in the Boston Museum of Fine Arts.

WORCESTER DISTRICT MEDICAL SOCIETY.

The annual business meeting of the society was held Wednesday, May 10, 1922, at 12.30 P. M., at the Lancaster Mills Inn, Clinton, Mass. The annual dinner was served at 1.30 P. M. Music and entertainment was provided during the dinner. Following the dinner the annual oration was given by Dr. Arthur W. Marsh, Worcester. Subject, "Changes Occurring in the Past Twenty-five Years Having an Effect on the Practice of Medicine."

The Clinton Fellows entertained the members the remainder of the afternoon at playing golf, close-up inspection of Clinton's large industries, visits to the Hospital, Wachusett Dam, etc.

The following officers reported by the Nominating Committee were elected for 1922-1923: President, Dr. George E. Emery, Worcester; Vice-President, Dr. Arthur W. Marsh, Worcester; Treasurer, Dr. George O. Ward, Worcester; Secretary, Dr. A. W. Atwood, Worcester; Orator, Dr. Albert G. Hurd, Millbury; Committee on Funds, Dr. Homer Gage, Worcester, Dr. David Harrower, Worcester, Dr. Ray W. Greene, Worcester; Commissioner of Trials, Dr. Walter P. Bowers, Clinton.

Councilors: Dr. F. H. Baker, Worcester, term began 1914; Dr. W. P. Bowers, Clinton, ex-officio, term began 1902; Dr. L. R. Bragg, Webster, term began 1922; Dr. G. A. Dix, Worcester, term began 1921; Dr. G. E. Emery, Worcester, term began 1920; Dr. M. F. Fallon, Worcester, term began 1916; Dr. Homer Gage, Worcester, term began 1906; Dr. J. J. Goodwin, Clinton, term began 1921; Dr. R. W. Greene, Worcester, term began 1907; Dr. David Harrower, Worcester, term began 1905; Dr. E. L. Hunt, Worcester, term began 1918; Dr. A. G. Hurd, Millbury, term began 1916; Dr. A. W. Marsh, Worcester, term began 1922; Dr. L. C. Miller, Worcester, term began 1921; Dr. C. B. Stevens, Worcester, term began 1920; Dr. G. O. Ward, Worcester, term began 1915; Dr. F. H. Washburn, Holden, term began 1916; Dr. S. B. Woodward, Worcester, ex-officio, term began 1902.

Councilor on Nominations: Dr. David Harrower, Worcester; Dr. George O. Ward, Alternate. Censors: Dr. F. H. Washburn, Holden, Supervisor; Dr. E. H. Mackay, Clinton; Dr. C. A. Sparrow, Worcester; Dr. E. H. Trowbridge, Worcester; Dr. J. J. Cummings, Worcester. Nominating Committee: Dr. F. L. Magune, Worcester; Dr. T. J. Foley, Worcester; Dr. R. J. Ward, Worcester; Dr. Merrick Lincoln, Worcester; Dr. J. C. Austin, Spencer. Librarian: Dr. A. C. Getchell, Worcester. Library Committee: Dr. Wm. F. Lynch, Worcester; Dr. O. H. Stansfield, Worcester: Dr. Wm. F. Holzer, Worcester. Auditing Committee: Dr. J. A. Barnes, Worcester; Dr. E. R. Leib, Worcester; Dr. Kathlyn Voorhis, Worcester.

ANNUAL MEETING OF THE NORFOLK SOUTH DISTRICT SOCIETY.

The annual meeting of the Norfolk South District Society was held Thursday, May 4, 1922, at the United States Hotel, Boston, Mass. Officers elected were: President, F. E. Jones, M.D.; Vice-President, C. A. Sullivan, M.D.; Secretary-Treasurer and Librarian, R. M. Ash, M.D.; Censors, G. M. Sheahan, Supervisor, F. W. Crawford, W. G. Curtis, A. J. Roach, F. R. Burke; Councilors, G. H. Ryder, Nom., G. M. Sheahan, Alt., C. S. Adams, O. H. Howe; Commissioner of Trials, N. S. Hunting, M.D.

Previous to the election, the Society received an unexpected call from the President of the parent Society who gave an interesting talk on the functions and duties of the officers of the parent Society.

F. E. Jones, M.D., President of the District Society, gave the annual address, and chose as his subject, "The Death Rate According to Different Diseases and Statistics in the City of Quincy for the Last 15 Years."

The Board of Censors met after the meeting, and one candidate was examined and passed a successful examination.

After the meeting the usual good dinner that the United States Hotel provides was enjoyed by the members.

James Edward Knowlton, M.D., was admitted to membership in the Norfolk South District Medical Society, May 4, 1922.

RICHARD M. ASH, M.D., *Secretary.*

LEGISLATIVE MATTERS.

Senate 420. Bill relative to certain penalties for the violation of certain laws relating to narcotic drugs and to commitments of drug addicts. Passed to be engrossed by the Senate. Sent down for concurrence.

Senate 429. Bill establishing the Division of Mental Hygiene in the Department of Mental Diseases. Ordered to a third reading by the Senate.

House 1602. Bill to provide for the registration of medical students for the limited practice of medicine. Passed to be engrossed by the House. Sent up for concurrence.

NEW ENGLAND SURGICAL SOCIETY.

C. A. PORTER, *Pres.* P. E. TRUESDALE, *Sec.*
H. L. SMITH, *Vice-Pres.* P. P. JOHNSON, *Treas.*

To the Members of the Society:

The fifth annual meeting will be held at Burlington, Vt., September 22 and 23, 1922, with headquarters at Hotel Vermont.

The following is a tentative outline of the program:

FRIDAY.

9 A. M.—Operative Clinic, Mary Fletcher Hospital.

11 A. M.—Dry Clinic, Mary Fletcher Hospital.

12:30 P. M.—Lunch at Ethan Allen Club.

2 P. M.—Scientific program, Hotel Vermont, Roof Garden.

4 P. M.—Steamer Ticonderoga — Boat party to points of historic interest and rare scenic beauty on Lake Champlain.

7 P. M.—Annual dinner on board steamer Ticonderoga.

SATURDAY.

9 A. M.—Reading of papers—Hotel Vermont.

12:30 P. M.—Lunch, etc., at Hotel Vermont.

2 P. M.—Completing the scientific program.

The invitation for the 1922 meeting to be held at Burlington has been most cordially extended by the Vermont members.

No part of New England is more picturesque and more memorable in American history. No section of New England is more worthy of a largely attended meeting. So plan to make September 21 and 22 a part of your vacation.

Members are invited to prepare papers for this meeting. The title of each paper should be in the hands of the secretary on or before June 1.

P. E. TRUESDALE, *Secretary.*